

॥ ॐ सूर्ये आत्मा जगदस्तस्थुषम् ॥

SURYA NAMASKARS

For

Health, Efficiency & Longevity

By

BHAVANRAV SHRINIVASRAV

PANT PRATINIDHI, B. A.,

RAJASAMIEB OF AUNDH.

Fifth Edition

(3000 Copies)

1940

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PREFACE TO THE FIFTH EDITION.

It may be a news to our readers that the universal popularity and usefulness of our Sūrya Namaskār System of Exercise have caused much envy and malice among people who hate to see anyone except themselves prosper. It is the characteristic of a certain class of persons to cherish ill will towards another simply because of his superior success and endowments.

The editor of "Sunday Referee", London, had the effrontery to publish a libellous and malicious article in his paper, dated 3rd January, 1937, about ourselves and our Namaskār Exercise. With the help of our son Shrimant Appa Saheb, Bar-at-Law, we appealed to a Court of Law in London against this defamation. The defendants offered their unconditional apology and paid a substantial sum into Court to compensate us for our injured feelings.

The Sūrya Namaskār Exercise is being practised not only in India but also in Europe and Australia.

The Fourth Edition was published in England in 1938 for England and other English speaking countries such as The United States of America, Canada, Cape Colony, Australia, etc., where it is now widely circulated.

The issue of the Fifth improved and enlarged Edition of this work gives us an opportunity to thank those who have expressed their appreciation of the Namaskār Exercise. And we trust that many more may find it as the intallible means of improving and maintaining their health.

II

Chapter XVIII is entirely a new addition and will be found to enhance the value of the book. What is said of the book cannot convey an adequate picture of its true worth. You must see it to appreciate its great usefulness.

The book as it now appears "is a call to arms to secure for *human race* the high standard of health, which is its birth-right."

Modern life is exceedingly wearing : The noise, the excitement, the hurry, the competition, irregular hours, hard study, anxieties, worry, lack of proper food and exercise make a heavy tax on the constitution soon resulting in a break-down of health. One can, however, be unaffected by these evils of modern civilization, if one should perform the Sūrya Namaskār Exercise daily and take care of the diet, and make proper use of sunshine and open air.

With 19 Chapters, 31 full page Illustrations, and an illustrated Wall Chart, the book, we trust, will continue to pave the way to win that trinity of life essentials—Health, Efficiency and Longevity.

Aundh,
District Satara.
November, 1940.

}

The Author

CHAPTER I.

THE NECESSITY AND VALUE OF EXERCISE.

THE PRINCIPAL PARTS OF BODY REQUIRING EXERCISE.

(A) THE NECESSITY OF EXERCISE.

Physical exercise has always been and still is necessary to the human being for Health, Efficiency and Longevity. It is indispensable to every modern individual so that in the present struggle for existence he be able to protect himself, his community and his nation and to earn his bread. It is as necessary to life as wholesome food, pure water, open air and sunshine.

Most people in these civilized days die twenty-five to fifty years previous to their allotted time because of the toxic condition of their blood, brought about by wrong food and drink and lack of exercise. The only antidote is right diet and harmonious system of physical culture. It is the muscular and mental activity that will enliven our life and will render us more efficient as a human unit. Our emotional reaction to every thing with which we come in contact in life is also tremendously multiplied.

Almost all children, till they are about eight years old, amuse themselves by running, romping and by a

variety of outdoor and indoor games. For them systematic exercises are not necessary. When, however, children are confined in unhygienic school rooms continuously for two or three hours in the morning and to the same period in the afternoon, and when the chubbiness of infancy begins to disappear to make way for their further bodily development, they must be made to take some methodical exercise regularly with a view to developing their body and mind.

Until a boy or a girl knows how regular exercise is absolutely necessary for his or her bodily and mental development, health, strength, vigour and fitness, systematic exercise should be enforced upon young people by their parents, guardians and school masters.

To leave this vitally important matter to the discretion or fancy of students will not do nowadays, especially when the succeeding generation is getting appreciably weaker than the preceding one in spirit, vitality and longevity. It is high time for us to take immediate steps to check this growing national degeneration. We cannot now afford to stand indifferent with folded arms.

(B) VALUE OF EXERCISE

(

The value of exercise carefully chosen and properly executed cannot be over-estimated. It is essential, however, that when performing the various rhythmic movements we pay special attention to the development of the whole muscular system in unison. Our aim should be all-round perfection and not simply the

of strength. True, muscle is some indication of physical power, but it is no criterion of general fitness.

"Exercise is beneficial to *both* sexes and *all* ages. No matter what branch of occupation we follow, or how physically incompetent we feel, a few exercises of the *right* kind will work wonder."

—Robert L. Fergusson, in "Health and Efficiency", July, 1928

We should like to impress upon the reader that physical exercise is more potent as a *preventive* than as a *curative* of the ills which the flesh is heir to. For thousands of years medical science and medical men have been trying to cure ailments and diseases with drugs, serums and scalpel all over the world, but they have never been able to eradicate disease from the face of the earth. Is it possible to do so? Yes, we venture to say, if the medical and hygienic sciences, Government and the public all direct their energies to find out and remove the *causes* of disease and to take care not to allow them to recur instead of trying to cure them. For however potent be the measures, such as medicines, serums, surgical treatments, etc., discovered by modern science for curing diseases, they cannot remove the origin or cause of diseases. Here again then, it is asserted that proper diet and Surya Namaskars if faithfully practised will be found potent enough to achieve this end.

(C) THE PRINCIPAL PARTS OF THE BODY REQUIRING EXERCISE.

One should strive to develop and strengthen the four principal parts of the body, on the proper function-

ing of which all health depends. It has been found by actual experience that the "Sūrya Namaskār" exercise if regularly, methodically and scientifically done, renders these four parts fully developed and capable of resisting disease or disease-germs. The four parts are :-

1. The Abdomen containing (a) Digestive Organs as stomach, liver, intestines; (b) Kidneys, (c) Uterus or Womb. A large number of people men and women, suffer from stomachic and intestinal disorders such as, dyspepsia, constipation, liver complaints, dropsy, piles, diabetes and a host of other diseases, and most women from uterus disorders.
2. The Chest containing Heart and Lungs Colds, coughs asthma, tuberculosis, palpitations, etc., are some of the symptoms of heart and lung derangement.
3. The Nervous System which includes Brain, Spinal cord, etc.-Brain affection is indicated by headache, migraine or hemicrania, insanity, brain-fag, loss of memory, etc. Paraplegia or paralysis, myelitis, sclerosis of the cord, loss of nervous control over the various muscles, fatigue after slight exertion, depression of spirit, cold hands and feet, disturbed sleep, pessimism, etc., are some of the common ailments of the Spinal Cord.

The secret of human power and health resides in the Nervous System. It is the Nervous System that

transmits energy to the tissues and organs of the body. It is not the actual muscle which makes a man strong so much as the vital energy behind it. *Exercise* not only improves the general health, but directly stimulates the nerve-centres. Health is not at all a matter of muscle. It means taking in as much energy as you give out.

4. The Eliminative or Excretory Organs, as the Colon, Lungs, Kidneys, Skin, etc., which, when not properly exercised, accumulate toxins or poisons in the body.

Insanity is comparatively rare amongst us in India, but the number of people falling premature victims to the diseased condition of the other three parts of the body is vast, especially among the so-called educated classes. It is admitted that wrong or excessive food is one of the causes of this woeful mortality, but it must also be admitted that lack of proper physical exercise is perhaps the main cause. It is clear, therefore, that an adequate and scientific system of exercise like *Sūrya-Namaskāra* which brings into play all the aforesaid organs, is indispensable, if health is to be maintained and longevity attained.

CHAPTER II.

DISADVANTAGES OF OTHER MODES OF EXERCISE.

It is an acknowledged fact that all games, whether eastern or western, require one or more companions. Even the great Indian game of wrestling needs one opponent, whilst most other games need either other players or special outfit.

Exercise with Indian clubs or dumb-bells cannot be done without clubs or dumb bells. For riding you need a horse or bicycle. You cannot swim without water. Walking, though not requiring apparatus or a companion, takes a lot of time. Eight miles' walk cannot ordinarily be done in less than two hours or two and a half at the rate of 15 or 20 minutes a mile. And all of the outdoor exercises depend upon favourable weather.

Any sport or game requires a spacious ground, which is not always available. In large towns, like Bombay and Poona, there are no play-grounds large enough to accommodate all of the school and college going students. Poona, for instance, has over nine or ten thousand pupils attending Municipal schools alone, with but four play-grounds for them all, each ground affording space for two or three hundred children only at the most.

The exercise to be insisted upon should develop not only the limbs, muscles and internal organs of the body but should also promote mental and spiritual development. To make such a physical exercise universally popular and acceptable there should be no necessity of apparatus or appliances; it should be easy to do; it should take a short time to perform; it should admit of being taken anywhere and by anybody and should not necessitate a partner or companion. (Vide Chapter XVIII)

There are many systems of exercise for the development of particular portions of the body, but the system most needed by men and women, young and old, is one that will stimulate, develop and strengthen the vital organs and muscles and thus enable them to store up vitality and energy. Our Namaskār System of Exercise will accomplish it wonderfully.

or to give them up altogether, is positively harmful, even as to eat two or three times the usual quantity of food and then to give it up altogether, would be both foolish and dangerous. The rules that govern diet and pastime apply to exercise as well. An exercise to be beneficial, should be taken daily, regularly, continuously and proportionately to one's strength. It is the daily performance of exercise, physical or mental, that will produce the desired effect. It ought, therefore, to become a habit.

To gain the desired end, therefore, Sūrya Neme-skārs have to be done daily systematically and scientifically. They are not a rope-dancer's antics. They must be so performed as to develop and strengthen almost every part of the body.

We have observed that in some schools and colleges physical training, such as gymnastics, drill, etc., is imparted to students twice or thrice a week. Such spasmodic efforts will never produce the desired benefits, which we want every boy and girl to possess.

The rewards, which await those who perform Sūrya Namaskārs according to our instructions, will be beyond price.



CHAPTER IV.

HOW TO DO SURYA NAMASKARS.

Every Sūrya Namaṣkārie concerned with the action of the following eight parts of the body :—
1 Forehead, 2 chest, 3 legs and feet, 4 arms and hands, 5 knees, 6 throat, 7 vocal organs and 8 mind and will.

There is given below the mode of performing Sūrya Namaṣkāra that was followed by the writer's worthy father, the late Chief of Aundh. For 55 years he did these Sūrya Namaṣkāra. We follow the same method.

For Sūrya Namaṣkāra a piece of ground, 7' × 2½', made of paved stone, rough bricks, or similar non-slippery surface and perfectly horizontal, is all that is required. As little clothing as possible should be worn, for too much clothing interferes with freedom of movement and also induces a tenderness of the skin inviting colds and similar ills.

The proper time for the Namaṣkāra is before sunrise with an empty stomach, for it is then that one's mind is fresh and one can have sufficient calm and quiet, as well as freedom from noise and disturbance from one's home and from outside. One should get up at 5 A. M., do one's washing and bathing, put on clean and light suitable clothing (the lesser the better) and do the Namaṣkāra, which one can finish five minutes before the sun rises, so as to be in a fit condition to absorb the violet rays of

उरसा शिरसा दृष्ट्या चक्षुषा मनसा तथा ।
पद्भ्यां कराभ्यां जानुभ्यां प्रणामोऽष्टांग उच्यते ॥

CHAPTER III.

* THE BEST EXERCISE - THE SŪRYA NAMASKARS.

Teking into consideration all the disedventages and difficultes mentioned in chepter II and efter actually practising for a long time elmost all the other forms of phyiceal culture, it has been found that Sūrya Nemeskāre are practicelly the best. The present writer has derived considerable benefit from this exercise and therefore strongly recommends that all boys and girls over eight yeers of age and all men end women, irrespectve of age, should practise Sūrya Namaskāre regularly end continuously

Every Position of Sūrya Namaskāre involves deep, scientific hreathing which broadens, deepens end strengthens the ohest, which houses the heart and lunge. The heart and lunge cannot function at their best unless they have room enough to work in. A strong heart and a good pair of lungs make for vitality and endurance. Hence the superiority of Sūrya Namaskāre over other exercises.

Not being content with develeping your arms, ohest and legs only, we figuratively take you apart and start to rebnild you from your heels up, inside and ont.

Our system will give you the outward appearance of an athlete and the internal condition of a lion. It will tone up your entire body, regulate your organs and will give you a rich blood stream.

People with weak heart or weak lungs will have their complaint permanently cured by Sūrya Namaskāra when properly and carefully done with Prenava, Bija Syllables and deep breathing. The Sūrya Namaskāra will also make the stomach, bowels, skin and nerve centres function normally and will purify the blood.

Children, both boys and girls, until they are about eight years old, are usually so active that they keep their muscular system in fairly good tone and their various functions fairly normal, but after eight they need definite, regulated exercise and so they must be made to do Sūrya Namaskāra irrespective of caste or creed.

Children with normal health from eight to twelve should do Sūrya Namaskāra daily from 25 to 50; boys and girls from twelve to sixteen should do generally from 50 to 100; all persons above sixteen should gradually increase the number up to 300 according to their capacity. After sixty-five or seventy, however, one should do till death as many as one's bodily condition will allow. If this practice be devoutly and perseveringly observed, one can defy all preventable disease and will be fit in mind and body as long as the exercise is kept up.

To do about a thousand Namaskāra a day for a few months and then to come down to about twenty-five

or to give them up altogether, is positively harmful, even as to eat two or three times the usual quantity of food and then to give it up altogether, would be both foolish and dangerous. The rules that govern diet and pastime apply to exercise as well. An exercise to be beneficial, should be taken daily, regularly, continuously and proportionately to one's strength. It is the **daily** performance of exercise, physical or mental, that will produce the desired effect. It ought, therefore, to become a **habit**.

To gain the desired end, therefore, *Sūrya Nama-skāra* have to be done daily systematically and scientifically. They are not a rope-dancer's antics. They must be so performed as to develop and strengthen almost every part of the body.

We have observed that in some schools and colleges physical training, such as gymnastics, drill, etc., is imparted to students twice or thrice a week. Such spasmodic efforts will never produce the desired benefits, which we want every boy and girl to possess.

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The proper time for the Namaskars is before sunrise with an empty stomach, for it is then that one's mind is fresh and one can have sufficient calm and quiet, as well as freedom from noise and disturbance from one's home and from outside. One should get up at 5 A. M., do one's washing and hathing, put on clean and light suitable clothing (the lesser the better) and do the Namaskars, which one can finish five minutes before the sun rises, so as to be in a fit condition to absorb the violet rays of

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the rising sun. Or if possible, the Nama-kārs may be done immediately after the sunrise, exposing one's body - almost bare body - to the life giving ultra-violet rays of the rising sun.

It is not the heat but the light of the sun that heals. The excessive heat of the sun is enervating destroys appetite, promotes fever and devitalizes. The early morning hours and the late afternoon hours are best, because they irradiate and invigorate us with more light than heat. Hence the importance of प्रातःसंध्याचंदनम् and सायंसंध्याचंदनम् on the bank of a river or lake or in the open.

Every physical exercise should be so taken that with about five to ten-minutes' rest after finishing it, one should feel fresh and cheerful to do one's daily duties. In other words, one should exercise within the limit of one's strength. This golden rule particularly holds good in the case of Sūrya Namaskārs.

First Position — अवस्थानम् — Spread a piece of thick woollen, silk or cotton cloth about 22 inches square on the floor. Stand facing the east, with feet and knees

* अवस्थानं जातुनासं ततश्चोर्ध्वनिरीक्षणम् ।

घण्टास्तुलितपूर्वं च साष्टांगं नमनं परम् ॥ १ ॥

पष्ठं कशेरुसंकोचं कशेरोर्विस्तरस्ततः ।

पुनरुर्वेक्षणादीनां व्युत्क्रमः क्रमशो भवेत् ॥ २ ॥

इत्येतैरासनैः कुर्यात्सूर्यस्योपासनं नरः ।

Fig. 1.



1st Position (see page 12.)

मयस्थानम्.

Pressing in or squeezing the belly or abdomen will help to attain this Position correctly as well as to expel the inhaled vitiated air. While in this bending posture, autosuggest that you are getting Health, Efficiency and Longevity. Exhale completely and audibly through the nose only. (See Fig. 2.)

The palms should be placed almost parallel to the sides of the cloth or at an inward angle of about 22° . Some prefer a 45° angle, while others place the palms with fingers turned inside quite opposite to one another. Whatever be the angle, the bases or balls of the thumbs should be in a line with the toes. The palms thus firmly placed should not be moved till they are raised for the tenth Position.

Most persons will find it difficult at first to attain and retain this Position. If they can touch the toes with the tips of the fingers, that is enough to begin with. The practice should be persisted in till the palms rest flat with the knees *straight*. First, the palms should be placed in position and then the knees should be straightened.

Though the finishing stage, viz., that of touching the knees with the nose or forehead will, at first, be found more difficult to attain, it can be mastered after persistent efforts. The benefit of the Namaskāra can be realized only if this Position is correctly done.

A certain amount of discouragement is inevitable at the beginning of all reconstructive systems of physical culture like Sūrya Namaskāra. That period must be lived

Fig . 2.



2nd Position (see page 13.)

जानुनासम्.

together and the toes touching the border of the cloth. Fold the hands against the chest pressing the palms against each other. Spread out the chest. Stiffen the whole body, especially the waist. Look straight. Keep the head, the neck and the body in a vertical line. Say the mantra - ॐ नमो भगवते वासुदेवाय. Close the lips. Inhale deeply and audibly through the nose only and hold the breath, and do the remaining nine positions with the lips closed. (See Fig. 1)

All the ten Positions which constitute but ONE Nama-kār, should be performed one after another without break and with the mouth shut and breathing through the nose only.

Have an image or picture of the sun or of the deity you adore hung up against the wall in front of you. Should you have nothing to adore, paint in a vivid colour or colours on a cardboard a star or a circle and put it up in front of you, so that by looking at it you will gradually acquire the power of concentrating your mind.

Second Position — जमुनासम् — Now holding the breath, bend over forward keeping the knees straight so that the palms, with fingers close together and the thumbs apart, rest flat about 20 inches apart on or near the corners of the cloth spread before you and in a line with the toes, making with fingers an inside angle of about 60° and touch or try to touch the knees with the forehead or nose, pressing the ground with balls of palms and keeping the knees quite straight.

Fig 3.



3rd Position (see page 15)

अध्वक्षणम्

through perseveringly in order to win success. " You need stick-to-it-iveness in this business of developing health. "

Third Position — उच्चैश्चरणम् — Inhaling deeply and audibly through the nose only and without bending the arms at the elbow, take one foot so far back as to keep the arms vertical. Touch the ground with the knee and the toes, the other knee jutting ahead of the vertical arm from under the armpit. Let the whole sole touch the ground. Look up bending the head as far back as you can and curving the back and waist as much as you can. Press the ball of the calf with the lower part of the thigh. Hold the breath. (See Fig. 3.)

The same foot—say the right foot—should be taken back first in the first round, then the left foot in the second round and so on alternately.

Fourth Position — तुलितवृत्त — Holding the breath, take back the other leg and straighten both legs so, that the big toes, ankles and knees touch each other. Keep the arms vertical. Let the legs, hips, back and hind part of the head be almost in a line. Support the whole body on the toes and palms keeping the legs straight. Continue holding the breath. (See Fig. 4.)

Fig 4



4th Position (see page 16.)

नुनितयपु.

Fig 2.



____ 5th Position (see page 17)
साष्टांगम्.

Fifth Position — साष्टांगम् — Holding the breath, place the knees on the ground without moving the toes and palms. Press or try to press the chin to the upper part of the chest. Touch the ground with the lower part of the chest and forehead simultaneously, keeping the tip of the nose off the ground. Draw in the belly so that it does not touch the ground and raise the hips as high as you can. Exhale completely and audibly through the nose only. (See Fig. 5.)

Sixth Position — कमेदसंकोचम् — Keeping the toes, knees and palms as in Position 5, straighten the arms vertically. Inhale deeply and audibly through the nose only. Throw the chest forward. Curve the back and look up to the ceiling, roof or sky, stretching the head as far back as you can. Hold the breath. (See Fig. 6.)

Fig 1



6th Position (see page 18)

कशेरुमवाचम्

Sixth Position — कनेदसंकोचम् — Keeping the toes, knees and palms as in Position 5, straighten the arms vertically. Inhale deeply and audibly through the nose only. Throw the chest forward. Curve the back and look up to the ceiling, roof or sky, stretching the head as far back as you can. Hold the breath. (See Fig. 6.)

Seventh Position — कशेरुविकसनम् — Holding the breath, resume the posture as in Position 4 Slanting the arms (without moving the palms and toes), bend the head down and in so that the chin should touch the upper part of the chest, and touch the ground with the heels keeping the legs stiff and straight. Continue holding the breath. (See. Fig. 7.)

Fig 7.



7th Position (see page 19.)

कशेरुविकसनम्

Seventh Position — कशेरुविकसनम् — Holding the breath, resume the posture as in Position 4. Slanting the arms (without moving the palms and toes), bend the head down and in so that the chin should touch the upper part of the chest, and touch the ground with the heels keeping the legs stiff and straight. Continue holding the breath. (See. Fig. 7.)

Eighth Position — ऊर्वक्षणा — Holding the breath, bring forward one leg keeping the arms vertical. Place the foot flat on the ground with the toes in a line with the balls of the palms (the further forward it is placed the better) projecting the knee ahead of the vertical arm from under the armpit as in Position 3. Touch the ground with the other knee and toes and look up bending the back and waist as in Position 3. Continue holding the breath. (See fig. 8.)

Fig 8



8th Position (see page 20)

ऊर्ध्वक्षणम्

Fig 9.



9th Position (see page 21)

जानुनासम्.

Ninth Position — आनुनासम् — Holding the breath, resume the posture as in Position 2 and pulling in the belly, exhale completely and audibly through the nose only. (See Fig. 9.)

Tenth Position — अस्थानम् — Taking a deep breath audibly through the nose only, resume posture as in Position 1. Take special care that you keep the knees quite straight till you stand erect (See Fig 10.

This completes ONE Namaskār, which is, as you see, made up of TEN different Positions.

For the SECOND Namaskār, say loudly the next mantra - ॐ नमो रवे नमः । Shut the mouth Inhale deeply and audibly through the nose only and repeat all the Positions with the lips closed and breathing audibly through the nose only, as per foregoing instructions.

Sūrya Namaskāra should 'always' be performed slowly at first so that 'you know by' the 'strain' which part of the body is 'being' exercised.' In this way 'you will see that each part of the body is separately called into play.

SANSKRIT NAMES OF THE TEN POSITIONS ARE—

Positions 1 & 10-	अस्थानम् —	Standing.
„ 2 & 9-	जानुनासम् —	Touching the knee with the nose.
„ 3 & 8-	ऊर्ध्वक्षेपम् —	Looking aloft.
Position 4	- तुलितवपुः —	Body-balance.
„ 5	- साष्टांगम् —	Involving eight parts of the body.
„ 6	- कशेरुसंकोचम् —	Spine-compression.
„ 7	- कशेरुविक्षेपम् —	Spine-stretching.

Fig 10



10th Position (see page 22.)

अपस्थानम्.

CHAPTER V.

HOW THE NAMASKARS DEVELOP THE BODY AND MIND.

1. STRENGTHENING THE MUSCLES

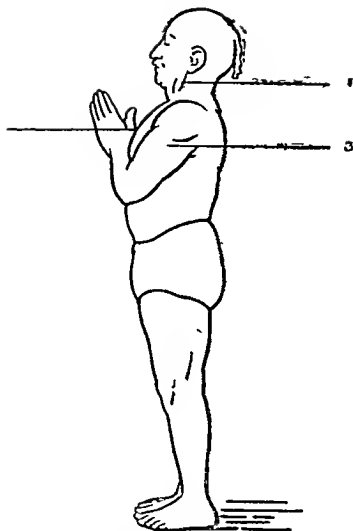
In our effort to acquire superb health and increased vitality we depend upon nothing so much as on the use of our muscles. Muscles are the only parts of our body that can be controlled by us. When properly exercised, they not only get strong themselves but tend to increase the energy and improve the functions of all the other organs. Hence the importance of developing and invigorating our muscles.

Let us now see which part or parts of the body receive or receive stress and strain in each of the two Positions, and which of the principal muscles or sets of muscles are brought into play.

First Position — Though no special muscle or set of muscles is affected, the waist and neck have to be stiffened a little as the head, neck and the lower body are required to be kept almost vertical. People with round shoulders or with a stoop in the back will feel an appreciable strain in the back. As lungs have to be inflated with deep breathing, there may also be a feeling of strain in the chest. Pressing the palms against each other calls the triceps into play. The upper arms, forearms, wrists and fingers have to be stiffened; allowing these parts to be loose and limp will nullify the exercise. You have to inhale deeply, hold the breath, and stand firm and erect.

In this Position the muscles that receive some strain are sterno-mastoid, pectoralis major and minor and triceps. (See Fig. 11.)

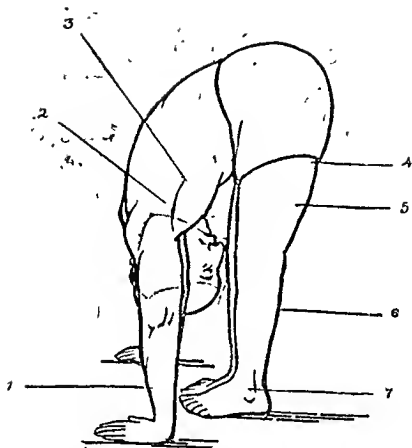
Fig. 11



1st Position, page 24.

Sterno-Mastoid. 2 Pectoralis Major & Minor 3 Tricep.

Fig. 12.



2nd Position, page 25.

- 1 Brachio radialis 2 Trapezeus & subscapularis 3 Latissimus
Dorsi 4 Gluteus muscles 5 Biceps Femoris 6 Hamstring
(Lateral) 7 Tendo Achillis

Second Position — It is necessary to bend over with the *knees straight*, till the palms are placed flat about 20 or 22 inches apart on the cloth at convenient angles, and in a line with the toes and to exhale completely. The palms with fingers together and thumbs apart once placed are not to be moved until the erect posture is resumed at the end of the Tenth Position. You will find that in this Position the muscles of the calves, the rear part of the thighs, the hips, the waist and almost all the muscles of the back and spine receive a strain, which means a gradual development of these parts and the elimination of the uric acid and other toxins from those parts, where the roots of premature decay and decline find lodgment. Special strain will be felt on big muscles joining the back and shoulders. The triceps are also brought into action. Considerable stress is brought upon the abdomen, stomach and waist muscles, while pulling in the belly and stooping forward *without bending the knees* in order to place the palms on the cloth and to touch the knees with the forehead or nose. This bending over and placing the palms on the floor with straightened knees stimulates and strengthens the Solar Plexus. "The solar plexus is the great sympathetic nervous centre lying directly behind the stomach at the spot where the ribs divide." After bending and placing the palms on the cloth, think for a moment that you are surely getting Health, Efficiency and Longevity (auto-suggestion) and then proceed to the next move.

Following are some of the muscles that
 in the second Position: *Brachio-radialis*,
latissimus-dorsi, *glutei*, *biceps femoris*, *ham-*
string (lateral) and *tendo achillis*. (See Fig. 12.)

Third Position — When taking back the right foot, the left thigh should press against the spleen and when the left foot is withdrawn the right thigh should exert a pressure on the liver. Similarly the muscles on the under side of the thighs should also receive hard stress. The withdrawn thigh as well as the ankles and wrists also get a portion of pressures.

The muscles strengthened in the third Position are muscles of the back, neck and throat, *sartorius*, *tensor-fasciæ-latæ* and *rectus-femoris*. (See Fig. 13.)

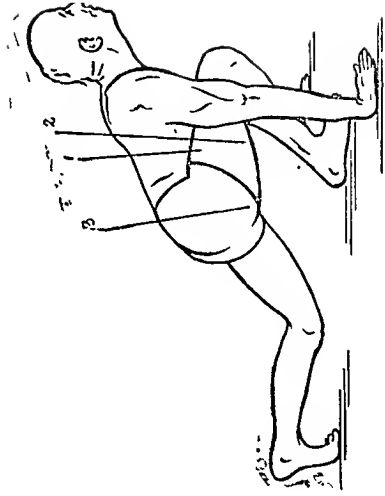
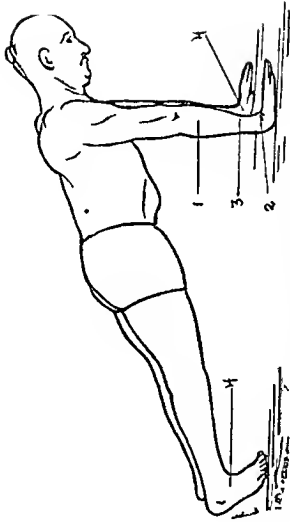


Fig 14



4th Position page 27

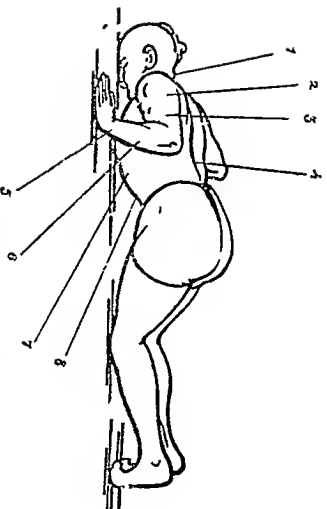
1 Supinator longus 2 Pronator teres 3 Brachialis 4 Extensors
of toes & fingers

Fourth Position — As the weight of the whole body is borne by the palms, forearms and toes, the following are some of the principal muscles that are brought into action: Supinator longus, pronator teres, brachialis and extensors of the toes. (See Fig. 14.)

Fifth Position — When stooping, the head should be bent down, so that the chin presses against the upper part of the chest. The bending forward and backward of the head exercises the muscles of the neck and throat tremendously. While prostrating, the whole of the body above the knees has to be supported by the hands, wrists and forearms, hence these parts get very strong. It is at this time that the stomach is well drawn in and a complete exhalation is made. In this Position most parts of the body touch the ground, viz - the toes, knees, hands, chest and forehead, the belly is not to touch the ground, but has to be pulled up and the hips to be raised to the full extent, consequently all the muscles of the abdomen, waist and hips are strained and strengthened.

Among the principal muscles strengthened in the fifth Position are - Brachio radialis, pronator teres, intercostalis internus (internal thoracic), external abdominalis, splenius capitis, deltoides, triceps, and latissimus dorsi (See Fig. 15.)

Fig. 13

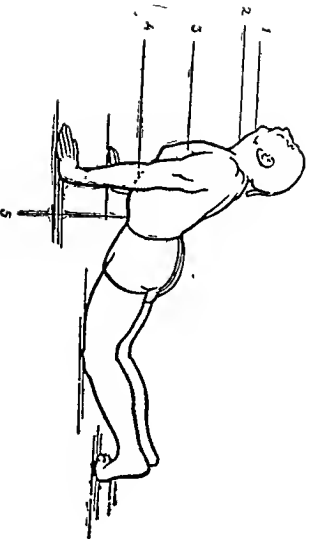


5th Position, (see page 28.)

1 Splenius capitis 2 Deltoidius 3 Triceps 4 Latissimus Dorsi 5 Brachio
 radialis 6 I ronator Teres 7 Intercostalis internu (Internal Trunci)

8 Laternal abdominal s

Fig. 16.



6th Position, (see page.)

1 Sternaloides 2 Sternaloides 3 Transversus Thoracis
(Pectoralis Major) 4 Rectus abdominis 5 Other abdominal muscles

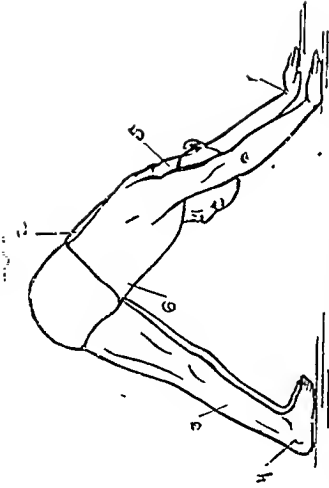
Sixth Position — In this Position, the back should be curved in as far as it will go, with a deep, slow inhalation, and the head should be turned up in order to look towards the ceiling or roof. In this Position the weight of almost the whole body is borne by the arms, hence all their parts, particularly the triceps muscles are fully developed, rendering the arms shapely, strong and supple. The chest also receives the benefit; it becomes wider and deeper. Owing to the strain and deep breathing the fat about the abdominal regions is gradually reduced. The girth of the chest increases, while that of the abdomen decreases, which is a sign of normal health. And as a natural consequence, all internal derangements such as liver and spleen disorders and bowel complaints, disappear. In this Position most of the muscles of the thighs, back, neck, and throat also get strong. As the head has to be bent forward and backward every time, all the front muscles of the throat and back ones of the neck are greatly developed. All predisposition to tonsillitis, caused and enhanced by wrong eating, gradually vanishes. And it is believed that even scrofula might be cured by this exercise.

The sixth Position develops the following muscles: Sterno-hyoideus, sterno thyreoidens, transversus thoracis, pectoralis major, rectus abdominis and other abdominal muscles. (See Fig. 16.)

Seventh Position — In this Position the muscles of the feet, calves, hips, waist, belly, back, neck and the upper parts of the arms are exercised.

This Position and the fifth, if properly done, will reduce the bulky girth of the abdomen. Nearly all human life originates in the abdominal region. This need not surprise you when you reflect that practically all of the vital organs except heart and lungs, are situated in the abdominal cavity.

The principal muscles developed in this Position are: Extensor carpi ulnaris, lumbar muscles, transverse abdominis and other abdominal muscles, flexor muscles, such as gastrocnemius tendo achillis and neck muscles, such as capitis brevis, etc. (See Fig. 17.)



7th Position, page 30.

1 Extensor carpi ulnaris. 2 Lumber muscles. 3 Flexor muscles. 4 Tendo Achillis. 5 Neck muscles. 6 Abdominal muscles.

Eighth, Ninth & Tenth Positions — These Positions are like those Nos. 3, 2 and 1 respectively. How the belly and sides receive pressure when taking the foot forward is explained above under the third Position.

(2) Strengthening the Liver, Spleen, Lungs, Splne and Nerves.

When at the beginning you can do only one round, that is 25 Namaskāre, the feet should be taken back and brought forward alternately, so that both the sides of the belly and both the thighs will get the strain uniformly. When more rounds than one can be done the same foot may first be taken back and brought forward in the first round and the other in the second and so on.

If, however, the liver be not in order, it is advisable that the right foot only be taken forward every time until that organ gets normal. Those whose liver complaint is hereditary or chronic had better do so always. Similarly those who suffer with spleen disorder, hereditary or caused by malaria, etc., are advised to bring forward the left foot only. In this respect, however, one must use one's own judgment.

The fact that the 2nd Position is assumed after a deep breath and with the belly well-drawn in, has the special merit of pressing the lower part of the lungs and thereby driving the inhaled air to the upper parts of the lungs and thus thoroughly ventilating the remote corners, where the tuberculosis bacilli generally

(3) Strengthening the Mind.

A vigorous mind in a healthy body is of greater value than any worldly possession. Life can be viewed from pleasant angles and problems and difficulties melt before the attack of mind determined to find a solution. The majority of men and women hardly realize the vast powers which lie latent below the surface of every human mind.

Will-force wields such a power in every human action that nothing can be done satisfactorily without it. Therefore the one predominating idea permeating throughout the performance of this superb exercise ought to be that before, during, and after the Nama-skāra, both bodily and mental powers are being developed and that they will be utilised or turned to proper use ever after. While taking any physical exercise, it must be realized that every action or movement is bettering a particular muscle or part of the body, and all will-power and mind-force must be concentrated in that spot. To allow the mind to wander and to do the movements mechanically or listlessly will spoil the whole idea.

In the case of other exercises and games we concentrate the mind upon the correct performance of, or upon the excellence in, the game or exercise, while in the Sūrya Namaskār exercise we devote our mind to secure Health, Efficiency and Longevity.

Long-continued Sūrya Namaskāra done loosely or in a slovenly manner may give the body some benefit,

but the full development of every part, cure of disease, or removal of pain cannot be produced unless the whole will-power is brought to bear upon the particular part of the body while actually performing the Sūrya Namaskārs. A sawyer or a blacksmith possesses muscles, but though they look prominent they often lack life and resilience. A long but loose and careless practice of Namaskārs might, in like manner produce a sawyer's muscles. To avoid this undesirable result, therefore, in each stage of the Namaskārs the entire will-force must be concentrated upon every part, by turns, as it is being taxed during the exercise. Conceive that any particular muscle or part is getting stronger, firmer, better shaped or more developed, and the object will be attained within a short time. If the mind is permitted to wander during this sacred occupation, the result will be only a muscle-bound body for all the time and trouble.



CHAPTER VI.

THE APPLICATION OF SIGHT AND SPEECH IN-NAMASKARS.

The Use of Sight.

Sight is very useful in concentrating the mind. To secure exclusive or undivided attention of mind there might be cited Shri Krishna's exhortation to Arjuna in the Bhagavadgītā,* "Look at the tip of your nose, don't look round here and there." While doing Namaskāre, therefore, have, as suggested elsewhere, an image of the Sun, a tutelary or guardian deity, a "swastika," a cross, a crescent or a white circular spot, hanging up in front. When bending the head down, the eyes are directed to the ground, and when stretching it up, the ceiling or roof meets the eye, but while getting up and standing, with hands folded, a definite object in front is needed to help in the securing of full mental concentration. Sight is, therefore, regarded as a necessary factor of Sūrya Namaskāre.

* समं कायशिरोमूर्ध्वं धारयन्नचलं स्थिरः ।

संप्रेक्ष्य नासिकाग्रं स्वं दिशश्चानवलोकयन् ॥

भगवद्गीता, १, ११.

(One should sit) holding the back, neck and head erect, immovably steady, looking fixedly at the point of the nose, without looking around.

The Use of Speech

The principal Mantras employed in Surya Namaskars are —

(a) Ōm - It is called Ōmkar or Pranava

(ओम्, ओंकार or प्रणव It is written as ॐ)

Every Bija Syllable or a series of Bija Syllables is invariably preceded by Ōm

(b) The six Bija Syllables - Hram, hram, hrum, brahm, branm and brah

(ह्राम्, ह्रीम्, ह्रूम्, ब्रह्मे, ब्रह्मो, ब्रह्म)

(c) The twelve names of the sun in the form of salutation —

Mitraya Namah, Ravaye Namah, Suryaya Namah, Bhanave Namah, Khagaya Namah, Pushne Namah, Hiranyagarbhaya Namah, Marichaye Namah, Adityaya Namah, Savitre Namah, Arkaya Namah and Bhaskaraya Namah

(मित्राय नम , रवये नम , सूर्याय नम भानवे नम , खगाय नम , पूष्ण नम , द्विरण्यगमाय नम मरीच्य नम , आदित्याय नम , रुचित्र नम , अर्काय नम भास्कराय नम)

The meanings of these twelve names are —

(1) Mitra - Friend of all (2) Ravi = Praised by all (3) Sūrya - Director or stimulator. (4) Bhānu - Giving lustre or beauty (5) Khaga = Stimulator of senses (6) Pushan = Nonriser (7) Hiranyagarbha - Possessing power to develop energy and vitality in semen virile (8) Marichu = Destroyer of disease (9) Aditya

= Attractor. (10) Savitri = Begetter. (11) Arka = Fit to be revered. (12) Bhāskar = Refulgent.

It will be seen from the meanings of these names that they are all epithets of the Almighty.

(१) मित्र (२) रवि (३) सूर्य (४) यातु (५) खग (६) पूषन् (७) हिरण्यगर्भ (८) मरीचि (९) आदित्य (१०) संवित् (११) अकं. (१२) मास्कर.

(d) The three hymns from Rigveda — उद्यन्नय मित्रमहः, etc., and one hymn from Yajurveda — हंसः शुचिपद्मसुरन्तरिक्षसत्, etc.

The arrangement in which the Pranava, the six Bija Syllables and the three Vedic hymns or one hymn, just mentioned above, are linked to the twelve names of the Sun, requires some elucidation for the reader to understand.

The three Rigveda hymns are, for this purpose, divided into twelve parts, as, उद्यन्नय मित्रमहः, आरोहन्तुतरां दिवम्, हृद्रोगं मम सूर्य, etc., and the Yajurveda hymn also is divided into twelve parts, as, हंसः शुचिपद्मसुरन्तरिक्षसत्, होता वेदिपद्म, etc. (See end of the Book.)

The Pranava, Ōm (ॐ), is used once or more than once in saying each of the 25 Namahāre. (See Chart.)

One Bija Syllable precedes one name of the Sun.

One part of the hymn or hymns is also preceded by one Bija Syllable.

With two names of the Sun go two Bija Syllables and with two parts of the hymn or hymns go two Bija Syllables.

To four names of the Sun are prefixed four Bija Syllables and to four parts of the hymn or hymns are prefixed four Bija Syllables.

With twelve names of the Sun, said at once in the 22nd, 23rd and 24th Namaskārs, you are to recite the six Bija Syllables twice over and the whole of the hymn or all the three hymns, said at once, should also be preceded by the six Bija Syllables repeated twice. (See Chart and Unabridged Sūrya Namaskāre at the end of the Book.)

On this scientific and convenient arrangement are based the unabridged Namaskārs as given at the end of the Book.

A Modified Course of Speech

First of all, note that the *ten* Positions given in the Book and in the Chart are to be done one after another without break and that they constitute but *one* Nāmakār. It takes not more than 15 to 20 seconds to perform all the ten Positions, with the Mantras as given in the Chart. Twenty-five such Namaskārs make one Round (आवर्तन, āvartana), which will require about 6 or 7 minutes.

To do one Round of unabridged Namaskārs, as given at the end of the Book, will take you a little longer time as you have, in addition to Pranava and Bija Mantras, to recite therein the Vedic hymn or hymns and their parts.

A beginner will, of course, take a little longer time than a practised hand.

You will notice that the Chart, which is intended to be used by people of every caste or creed, contains no Vedic hymns for the simple reason that non-Hindus might object to saying them. They will be found, however, in the unabridged Namaskārs at the end. As the Namaskār exercise, moreover, is fast becoming universally popular throughout the length and breadth of India, it bids fair to be accepted by all the educational authorities in the country as the most suitable exercise to be made *compulsory* in all their institutions. We have, therefore, purposely omitted the Vedic hymns from the Chart, so that it may be used by all Hindus, non-Hindus, Parsis, Christians, Mohammedans, Jews, etc.

Those who do not believe in the Vedas or who do not want to include Vedic hymns in saying Sūrya Namaskārs, may say as follows :—

1 The First Series of twelve Namaskars (1-12) is done rather fast.

First Namaskār — On assuming the *first* Position in the Chart, say loudly and clearly the *first* Mantra: Ōm hrām Mitrāya namah, ॐ मित्राय नमः। Shut your mouth. Take a full, deep, audible breath through the nose only and go through the remaining nine Positions as directed in the Chart or Chapter IV, keeping the mouth shut and breathing all the while audibly through the nose only. When you have thus assumed the tenth Position, it is the end of the first Namaskār and the beginning of the second.

Second Namaskār — Say the second Mantra: *Om hrīm Ravaye namah*, ॐ ह्रीं रवये नमः । Shut the mouth. Inhale deeply and audibly through nose only and perform all the Positions keeping the month shut and breathing through the nose only. The tenth Position thus resumed is the end of the second Namaskār and the beginning of the third.

Third Namaskār — Say the third Mantra: *Om hrūm Sūryāya namah*, ॐ ह्रूं सूर्याय नमः । Shut the month. Take a deep, audible breath through the nose only and do all the Positions with the mouth shut and breathing through the nose only. The tenth Position thus resumed is the end of the third Namaskār and the beginning of the fourth.

Fourth Namaskār — Say the fourth Mantra: *Om hraum Bhānave namah*, ॐ ह्रौं भानवे नमः । Shut the mouth, etc. as above.

Fifth Namaskār — Say the fifth Mantra: *Om hraum Khagāya namah*, ॐ ह्रौं खगाय नमः । Shut the month, &c.

Sixth Namaskār — Say the sixth Mantra: *Om hrāḥ Pūshne namah*, ॐ ह्रां पूष्णे नमः । Shut the mouth, etc.

Seventh Namaskār — Say the seventh Mantra: *Om hrām Hiranyagarbhāya namah*, ॐ ह्रां हिरण्यगर्भाय नमः । Shut the month, etc.

Eighth Namaskār — Say the eighth Mantra: *Om hrim Marīchayo namah*, ॐ ह्रीं मरीचये नमः । Shut the month, etc.

Ninth Namaskār — Say the ninth mantra: *Om hrūm Adityāya namah*, ॐ ह्रूं आदिष्याय नमः । Shut the month, etc.

Tenth Namaskār — Say the tenth Mantra: *Om hraum Savitre namah*, ॐ ह्रूं सवित्रे नमः । Shut the mouth, etc.

Eleventh Namaskār — Say the eleventh Mantra: *Om hraum Arkāya namah*, ॐ ह्रूं अर्काय नमः । Shut the mouth, etc.

Twelfth Namaskār—Say the twelfth Mantra: *Om hrah Bhāskarāya namah*, ॐ ह्रः भास्कराय नमः । Shut the mouth, etc.

2. The Second Series of six Namaskars (13-18) allows you a little more time.

Thirteenth Namaskār — Say the thirteenth Mantra: *Om hrām-hrīm Mitra-ravibhyām namah*, ॐ ह्रां ह्रीं मित्ररविभ्यां नमः । Shut the mouth, etc.

Fourteenth Namaskār — Say the fourteenth Mantra: *Om hrūm hraum Sūrya-hhannhhyām namah*, ॐ ह्रूं ह्रूं सूर्यमानुभ्यां नमः । Shut the mouth, etc.

Fifteenth Namaskār -- Say the fifteenth Mantra: *Om hraum hrah Khaga-pūshahhyām namah*, ॐ ह्रूं ह्रः खगपूषभ्यां नमः । Shut the month, etc.

Sixteenth Namaskār — Say the sixteenth Mantra: *Om hrām hrīm Hiranyagarbha-marichibhyām namah*, ॐ ह्रां ह्रीं हिरण्यगर्भमरीचिभ्यां नमः । Shut the mouth, etc.

Seventeenth Namaskār — Say the seventeenth Mantra: Ōm hrūm hraum Aditya-savitribhyām namah ॐ ह्रूं ह्रैं अदित्यसावित्रभ्यां नमः । Shut the mouth, etc.

Eighteenth Namaskār -- Say the eighteenth Mantra: Ōm braum hrah Arka-bhāskariābhyām namah ॐ ब्रौं ब्रह् अर्कभास्कराभ्यां नमः । Shut the mouth, etc.

3 The Third Series of three Namaskars (19-21) affords a still longer period.

Nineteenth Namaskār — Say the nineteenth Mantra. Ōm hrām hrīm hrūm hraum Mitra-ravi-sūrya bhānubhyō nameh, ॐ ह्रां ह्रीं ह्रूं ह्रैं मित्ररविस्वर्भानुभ्यो नमः । Shut the mouth, etc.

Twentieth Namaskār — Say the twentieth Mantra Ōm braum hrah hrām hrīm Khagā-pūsha-hiranya gerbha-marīcibibhyō namah, ॐ ब्रौं ब्रह् ह्रां ह्रीं खगपुषहिरण्यगर्मरीचिभ्यो नमः । Shut the mouth, etc.

Twenty-first Namaskār — Say the twenty-first Mantra: Ōm hrūm hraum braum hrah Aditya savitrarka-bhāskerebhyō namah, ॐ ह्रूं ह्रैं ब्रौं ब्रह् अदित्यसावित्रर्कभास्करेभ्यो नमः । Shut the mouth, etc.

4 The Fourth Series of three Namaskars (22-24) takes the longest time to say.

Twenty-second Namaskār — Say the twenty-second Mantra: Ōm hrām hrīm hrūm hraum braum hrah, Ōm hrām hrīm hrūm hraum hraum hrah, Mitra-ravi-sūrya-bhānu-khagā-pūsha-hiranyagrābha-marīchyāditya-savitrarka-bhāskerebhyō namah, ॐ ह्रां ह्रीं ह्रूं ह्रैं ब्रौं ब्रह् ॐ ह्रां ह्रीं ह्रूं ह्रैं ब्रौं ब्रह् मित्ररविस्वर्भानुखगपुषहिरण्यग्रार्कभास्करेभ्यो नमः । Shut the mouth, etc.

even after twelve or sixteen Rounds. This is a unique advantage afforded by the proper recitation of the Pranava and Bijas.

Then also the Pranava, Bijas and Hymns have to be recited in the standing posture with hands folded. During actual exertions, such as bending over, prostrating, rising, etc., all efforts are concentrated on inhaling and exhaling through the nose only and on autosuggesting that you are getting stronger and healthier.

The Unabridged Namaskars.

The followers of Rigveda and Yajurveda have Vedic hymns * included in the Sūrya Namaskārs in addition to the Pranava and Bijas or Bija Syllables.

* The followers of Rigveda and Krishna Yajurveda say the following three hymns —

उद्यन्नद्य मित्रमह आरोहन्नुत्तरां दिवम् ।
 हृद्रोगं मम सूर्य हरिमाणं च नाशय ॥ १ ॥
 शुकेषु मे हरिमाणं रोपणाकासु दध्मसि ।
 अथो हारिद्रवेषु मे हरिमाणं निदध्मसि ॥ २ ॥
 उदगादयमादित्यो विश्वेन सहसा सह ।
 द्विपन्तं मह्यं रन्धयन्मो अहं द्विपते रधम् ॥ ३ ॥

ऋग्वेद ११५०१११-१३.

[1] Rising this day, O, rich in friends
 ascending to the loftier heaven,
 Surya, remove my heart's disease,
 take from me this my yellow hue.

[2] To parrots and to starlings let us
 give away my yellowness,
 Or this my yellowness let us
 transfer to Harital tree.

Continued on next page.

This will make the exercise a bit slower and will enable you to put more strain and concentration on that part of the body you wish to strengthen.

Continued from previous page.

[3] With all his conquering vigor,
this Aditya hath gone up on high,
Giving my foe into mine hand
let me not be my foeman's prey.

Ralph T. H. Griffith, M. A., C. I. E.,
in his book, "Hymns of Rigveda "

hymn employed by the followers of Shukla Yajurveda
... follows:—

हंसः शुचिपद्मनुरन्तरिक्षसरोता वेदिपदतिथिर्दुरोणसद् ।
नृपदरसदत्तसद् व्योमसद्भजा गोजा क्रतुजा अद्रिजा क्रतुं वृद्धे ॥

— वा. यजुर्वेद १०।१४.

हंसः = Exhalation and Inhalation.

शुचिपद् = Dweller in the purest place.

वसुः = Making others' dwelling comfortable.

अन्तरिक्षसद् = Dweller in the mid-air (interior of the heart.)

होता = One who gives and takes.

वेदिपद् = Dweller in the altar (heart.)

अतिथिः = Moving constantly or having no fixed time of arrival
and departure.

दुरोणसद् = Residing in the protective element.

नृपद् = Residing in man.

वरसद् = Residing in the excellent.

क्रतुसद् = Residing in the Divine Law or Supreme Spirit.

व्योमसद् = Residing in firmament.

भञ्जाः = Producer of life-fluid.

गोजाः = Endowing senses with vital energy.

क्रतुजाः = Maker of Divine Law.

अद्रिजाः = Giving birth to what is respected.

To those who have no faith in the Vedio hymns, we would advise to put their whole soul and will into each Namaskār, as given in the Chart, if they wish to reap the fullest benefit from the exercise.

Controlling the Breath.

Correct and rhythmic respiration in performing Sūrya Namaskāra is absolutely necessary to produce maximum results.

Deep breathing is the first essential of healthy life. It improves the circulation, develops the chest, frees the lungs of toxins, stimulates the brain, steadies the nerves and gives an invaluable feeling of control and poise.

Continued from previous page

ऋतम् = Truth, right.

बृहत् = Great.

These attributes are usually applicable to the Soul or Jivatman (जीवात्मन्), and as the Sun is regarded in the Vedas as the soul of all that is movable and immovable, they hold good in the case of the sun also.

The highest goal of the Sun-adorer is ultimately to identify himself or herself with the Soul or Jivatman.

(१) योऽसाचादित्ये पुरुष सोऽसावहम् ।

— या यजुर्वेद ४० । १७.

The Spirit yonder in the Sun,
The Spirit dwelling there am I

(२) सूर्य आत्मा जगत्स्तस्थुषश्च ।

— ऋग्वेद २ । २२५ । २.

The Sun is the soul of the movable and of the immovable

Try, as you breathe deeply, to imagine that you are drawing in something infinitely rare and soothing and something so exquisitely potent that you feel its effects with every breath.

Breath is Life - Breath is Strength-as our Upanishads say:

प्राणो वै बलम् ।।

— बृहदारण्यक उपनिषद् ५।१।४.

प्राणैर्बलम् ।

— महाना. उपनिषद् २१।१

Full instructions about regulating and controlling the 'breath' will be found in 'Chapter IV,' but being mixed up with directions about the different movements of the body involved in assuming the ten Positions, they may not be grasped by a beginner; we, therefore, try to explain them 'here' graphically or rather in a tabulated form to make the matter clearer.

You might have marked from the detailed instructions both in the book and in the Chart that there are *three* deep complete breaths (प्राणायाम) in doing one Namaskār, i. e. *three* full Inhalations of breath (पूरक), *three* Holdings or Retentions (कुंभक), and *three* complete Exhalations (रेचक).

We shall, for convenience sake, designate these three stages of breath by their initial letters: I for Inhalation; H for Holding the breath, and E for Exhalation.

The following table will show how these breath stages occur in each of the first nine Positions:

Position	1 —	I, H	}	First complete breath.
"	2 —	H, E		
"	3 —	I, H	}	Second complete breath.
"	4 —	H		
"	5 —	H, E		
"	6 —	I, H	}	Third complete breath.
"	7 —	H		
"	8 —	H		
"	9 —	H, E		

A beginner need not worry over regulating and controlling his breath in going through all the ten Positions until he can, with a little intelligent practice, do the movements correctly—almost automatically. Then he will find it easy to manage his breath.



CHAPTER VII.

HEALTH THROUGH SPEAKING.

STRENGTHENING THE VITAL ORGANS.

There must now be described the wonderfully healing and vitalizing powers—physiological as well as psycho—possessed by the apparently meaningless Pranava, Ōm and the Bija Syllables or letters, hrām, hnm, etc., and how they influence several organs, such as the heart, stomach, brain, etc., and how they serve not only as prophylactic (preventive) but therapeutic (curative) as well.

(a) Ōm, ॐ. This sacred syllable begins every Mantra of "Prāṇāyāma", sometimes every letter of any Mantra, and often it stands at the beginning and end of a Mantra. The syllable "Ōm" is regarded as the essence of all Vedic learning*. The o in the word home resembles the sound of o in Ōm.

This "Ōm" precedes every Bija syllable or a series of it. It regulates and develops the heart action, stimulates the brain and stirs up the stomach. This

* ॐ इत्येकाक्षरं ब्रह्म व्याहरन् मामनुस्मरन् ।

यः प्रयाति त्यजन् देहं स याति परमां गतिम् ॥

भगवद्गीता, ८ । ११

He, who, reciting "Om", the one-syllabled Brahman, (and) meditating upon Me, goeth forth, abandoning the body, reacheth the highest goal.

sacred syllable might be more accurately transliterated as "oommm" and prolonged O and prolonged M. The same is the case with the utterance of all the Bija Syllables.

(h) Next comes " hrām ", ह्राम्. In this all the sounds are long. The correct pronunciation like *α* in calm is 'hrraaamm.' The aspirate sound " h " proceeds from the heart. Everytime, therefore, you say " hrām " the heart vibrates vigorously. The process of purifying blood takes place in the heart, for the pure blood that runs to any affected part of the body is pumped out by the heart. If that blood is made pure before it reaches the affected or diseased part of the system, then only the desired result will follow, i. e., the cure of the affection or malady. Should impure or toxic blood circulate through the body the affected or diseased part is likely to get worse instead of being cured. Every Bija Syllable, therefore, is made to sound with the initial aspirate " h " with a view to vibrate and strengthen the heart so that it should pump out pure blood only.

Just as each Bija begins with the aspirate " h " it ends with the labial nasal " m ". Every normal respiration has to be made through the nose. It is this respiration that also helps to purify the blood. The oxygen taken in with each inhalation coming in contact with the venous blood, renders it pure and red, and there is breathed out carbon dioxide, a poisonous gas, from the impure blood. As respiration is done through the nose and wind pipe, both of these organs should be kept free and unaffected by ailment or disease, and it

is for this purpose that each Bija is made to terminate in the continuous or prolonged nasal "mmm".

Likewise in each Bija there stands the lingual "r" between the initial aspirate "h" and the final nasal "m". The consonant "r" is held almost as important as "Om" in the Mantra-Shāstra. (Mantra-Shāstra is that which teaches prayers, hymns, mystic formulæ, spells, etc., to be addressed to particular deities.) In uttering the consonant 'r' (र) the tip of the tongue strikes the front palate and tends to vibrate the brain. Hence the proper utterance of the psychic syllables "hrām" "hrīm," etc., vibrates and invigorates the heart, wind-pipe and brain—three of the vital organs, the soundness of which is necessary to keep the system strong and healthy.

There is an elegant couplet, * in Sanskrit eulogizing "hrām" which when freely translated means — "The mere utterance of "rā" (र) in hrām drives out sin-toxins from the open mouth, and being afraid of its re-entrance the consonant 'm' (म्) serves the purpose of a door by closing the lips."

In reciting the Bijas one has to open the mouth for "hrā" in hrām, etc.; and to shut it for "m." Then while actually making the movements of the body in doing the Namaskāra, all breathing has to be done through the nose and not through the mouth.

* राकारोच्चारमात्रेण मुक्ताभिर्योति पातकम् ।
पुनः प्रवेशनीत्या च मकारस्तु कपाटयत् ॥

The continuous long vowel "ā" (अ) in hrām (as *a* in calm) strengthens the upper three ribs, purges (makes physically and spiritually clean) the alimentary canal of toxins, vibrates the brain, drives away lethargy (morbid dullness) and cleanses the upper portion of the lungs by stimulating them. This Bija "hrām" will prove a curative for asthma, bronchitis and for predisposition to pulmonary tuberculosis.

(o) The long vowel sound "ī" (ई) in hrīm (as *ee* in seem), ह्रीं, stimulates the action of the throat, palate, nose and the upper part of the heart. The repetition of "hrīm" clears the respiratory and digestive passages of the phlegm secreted or collected there. In the first or second round of Namaakāre it is sometimes, if not often, necessary to eject the superfluous mucus from the nose, throat or mouth, but after about two rounds the respiratory passage is thoroughly cleared.

(d) The long vowel sound "ū" (ऊ) in hrūm (as *oo* in room), ह्रूं, effectively excites or stimulates the liver spleen, stomach and intestines, and reduces the abdomen. Women suffering from chronic disorder of hypogastrium (the lower region of the abdomen), will immensely profit by repeating "hrūm" loudly and fully.

(e) The compound vowel sound (ऐ) of the mystic syllable "hraiṃ" (as *i* in time), ह्रैं, irritates the kidneys. The repeated utterance of "hraiṃ" in the Sūrya Namaakāre promotes urination or serves as a diuretic.

(f) The compound vowel sound (औ) of the Bija "hrauṃ" (as *ou* in round), ह्रौं, acts on the rectum and anus and

helps them to function normally. As progress is made in Scientific Sūrya Namaskārs, it will be found that the bowels that were reluctant in their function before bathing will freely open after about half an hour or so on finishing this exercise

(g) The last but not the least is "brah," ॐ , which vibrates the chest and throat

Thus all these seemingly meaningless Pranava and Bijas produce stimulation and vibration in different vital parts of the system, such as the heart, abdomen, womb, throat, palate, windpipe, brain, etc., purify their blood, and consequently remove disorders, ailments and diseases in those regions. Almost every disease will be found to originate either in the head, nose, throat, heart, lungs or abdomen. When all these parts are purged of their impurities or toxins by the Pranava and Bijas, the circulation of the blood receives stimulation by the vigorous movements of the limbs and organs in the process of Namaskars. The limbs and organs, brought into play, not only develop externally in shape, size and strength, but improve also in their internal functions, endurance and power of resistance to disease, by reason of the vigorous and healthy circulation of the blood.

The body is not completely functioning if the vocal cords are left silent. Moreover, the vocal cords when vibrating extend their influence beyond themselves to every corner of the body.

Thus the Sūrya Namaskāra produce a *double* benefit, which is a unique feature of this wonderful exercise. No other single exercise can approach the Sūrya Namaskāra in this respect.

Summary.

The Pranava Ōm (ॐ) stimulates all the vital internal organs of the body, especially the brain, heart and stomach.

Hrām (ॠ) acts as a stimulus to the brain, heart, alimentary canal, respiratory organs, such as nose, windpipe, throat, lungs, &c., and upper ribs.

Hrim (ॡ) invigorates the throat, palate, heart, respiratory and digestive organs.

Hrūm (ॢ) strengthens the liver, spleen, stomach abdomen, hypogastrium, uterus and intestines.

Hraim (ॣ) stimulates kidneys.

Hraum (।) normalizes the function of the rectum and anus.

Hrah (॥) develops the chest and throat.



CHAPTER VIII.

A EUROPEAN SCIENTIST'S EXPERIENCE.



The following experience of a European Scientist will convince you of what we say in regard to the potential powers of the myetic Bija Syllables. It is an extract of the article written by B. M. Lesser Lasario in "Physical Culture" Magazine for April, 1924, edited by Bernarr Macfadden, New York:—

I breathed my way to health; as you can.

I was born in Vienna. In early childhood I was delicate and inclined to be overstudious at school—a vice which is well enough if you keep it in its place. In my case it was considered a virtue; and they let me subsist on an unlimited diet of books till my digestion, both mental and physical, went to pieces, and left me a wreck.

From then till eighteen I was never well. At eighteen my troubles took the particularly acute and agonizing form of articular rheumatism. Doctors gave me up as hopeless.

But one day I made a discovery. I found that there was actually such a thing as the Breath of Life. I discovered that it was neither a metaphysical abstraction nor an ancient scriptural phrase, but a living fact, for which I had thirsted unknowingly.

Breath is Life.

Breath is life. Control it and make an art of it, and you have under your hand a throttle that gives you

mastery of your whole being. To move a throttle is easy, if you know where to find it. It is my life work to teach others to find it and to make an art of its use. Hence this story of my return from the edge of my grave. It is not a theory; it is the tale of a thing that happened. Act on it and you may have a story of your own to tell. Sometimes it is hard to act—I know that. But this, I repeat, is easy—as easy as breathing. So to my story.

What the Baby Said.

When I was eighteen and suffering from acute rheumatism, a neighbour brought her infant to our house and left it there for several hours in our care. The presence of the healthy child diverted me and made me forget my aches for the time. I found this baby lying on its back looking at the ceiling and ever and anon lulling, "lah, lah, lah, lah, lah."

I asked our servant girl to undress the child and bring it to my bed. She did so. Propping myself up as well as I could, I drank every inch of its beautiful little body with my hungry eyes. It was as God had made it. Nothing had warped it yet. I compared that marvel with my own blasted and withering carcass, which so lacked beauty that it was repulsive to me, its owner.

The baby looked at me and went back to the serious business of life, cooing and singing to itself, "lah, lah, lah, lah, lah, lah." I was delighted. I held my breath to listen.

Presently I noticed something. Every time the

vibration in the region of the upper three ribs. It localized there. I tried it on myself, and felt the same thing. This was interesting. I tried another vowel sound, saying "poo, poo, poo," many times, and felt that here the vibration localized itself further down. Then I tried to teach the baby to articulate something like "poo, poo, poo," etc., in the hope that I could more closely observe the result of it. At first I got no results at all but after two hours of coaxing, I did finally get it to say what I wanted. The vibration was in the abdomen.

I wondered how the utterance "lah" gave a pronounced vibration in the upper chest, and "poo" in the abdomen. Along with that I reasoned, perhaps the mere act of singing that repeated vowel sound produced a sympathetic nervous reaction of a very far reaching sort in other parts of the child's body. Perhaps it reached important nerve centres. If so, there was no telling how enormously significant the thing might be.

Two things were evident. First, the repetition of that sound by the baby went with a mood, a mental attitude of some sort, however elemental, the child was happy. Second, that vibratory effect was astonishingly pronounced. I noticed that the child would keep on saying "lah lah, lah," continuously without taking breath; and that when its lungs were reasonably empty, it would draw a full breath and begin again. One result of this was a prolonged holding of air in the lungs; and another result was a steady prolonged contraction of the abdominal muscles and the diaphragm.

Copying The Baby.

I began forthwith to try out various vowel sound on myself. Lying there like a baby and trusting in Nature, I hummed and sang these wordless monotones for minutes at a time. At first I could not stand much of it; it made me dizzy; but gradually I became used to it. One thing I always tried to do was to assume a mental attitude that seemed to me to go with the vowel sound I used, "E", for instance, would be bright and cheerful "O" seemed to go with feelings darker and more grave-but, of course, not melancholy or gloomy.

When weeks later I began to recover from my rheumatism, I was uncertain whether my new hobby had anything to do with it or not. But there was no doubt at all as to its immediate effect on my general feeling. Invariably it produced results quite definite. I became perfectly sure that something was getting itself done inside of me. All my bodily functions seemed to run more smoothly; and some of the vowel sounds I practised had effects which were very local and evident indeed. The "E" type, for instance, resulted in the discharge of considerable quantities of mucus from the throat and bronchial passages. These discharges continued till those tissues regained their tone. How and why they regained it? Perhaps this method of combined breathing, humming and right feeling had helped to normalise the circulation. Perhaps one vowel might work on one part of the body and another vowel on another part. Perhaps the various vowels I was using would cure my whole sick body. In that case, I had evidently hit

upon a way to control the internal circulation and my sympathetic nervous reactions at will. Basically, it seemed a way to drive the blood in nourishing floods to any spot where the starving tissues might need it.

Thirty Years' Proof.

At that time I could not be certain of all this; I could only hope and believe. But today, thirty years later, I can affirm it positively. For I have put it to the test of use hundreds and hundreds of times. With it I have cured myself and with it I have cured others. To-day I can drive the blood to any spot in the interior of my body at will, for the purpose of either restoring or maintaining normal tissue tone or normal activity. The technique which I have developed after these many years of experiment and research is definite, it is simple, it is "as easy as breathing," it is as easy as saying "lah, lah, lah, lah."

An adequate circulation of rich, healthy blood is the central requirement on which every natural and normal therapy must be based. Every adequate method of healing is a device for restoring a normal circulation to starved and poisoned tissues; and the immediate and specific cause of death is a failure of the circulation which may be induced, unfortunately, in scores of different ways.

What I want first to establish most vividly is that any technique by which it would be possible for a man to control his circulation, to drive it hither and yon at will, would be the most potent single instr

health that could be placed in his hands. It would not be the only condition of health, but it would be the most immediately useful and important of them all. Having thus a means of control, he would henceforth be like an engine-driver with his hands upon the throttle.

What I have found in my system of vowel breathing is a throttle for the control of the human body; and it acts by governing the internal circulation.

Imaginary or Real.

Does it really control, or do I merely imagine the control and so benefit from a vivid bit of auto suggestion? I answer from the experience of thirty years that the control is real, and that the proof of the pudding is in the eating. Try it. If you stand up and breathe deeply through your nose eight or ten times, emptying your lungs as completely as possible, you will experience certain definite sensations. If you are not used to the exercise, dizziness will be one of them. You will, as it were, get drunk on oxygen. The dizziness will be caused by changes in the circulation. If anyone should try to tell you that it was the result of any auto-suggestion, you would laugh. You would understand that the breathing had done it. The same is true even in a greater degree of my method of vowel breathing, which is quite different from any other method of breathing and produces other effects which are important, and which are apart from the mere taking in of oxygen. For instance, it produces, as I have already said, reactions of the sympathetic nervous system. Singers experience such reactions and that is one reason why singing is beneficial. The sympathetic

nervous system controls both the circulation of the blood and the activities of the endocrine glands and of the vital organs. My method of vowel-breathing puts it to work.

Perhaps I should make this reference specific. The man who doubles his fists and scowls can easily pass himself from a condition of mental and physical placidity to one of anger. His face flushes, his heart beats faster, his adrenal glands pour stimulating hormones into his blood, his circulation alters. The sympathetic nervous system has been put to work. In like manner, he who shapes his lips into a smile and his eyes to twinkle, may change his mood. Similar is the case with the assumed feeling of love, pleasure, fear, melancholy, etc. All this change of mood is due to the reactions of the sympathetic nerves.

Our daily speech by which we express what we think and feel, is based on the five vowel sounds, A, E, I, O, U. Each uttered emotional sound, therefore, goes with and produces a definite effect on the sympathetic nervous system.

What is violin, the most powerful emotional instrument in the world save the human voice which it so resembles, but a device for the uttering of vowel-sounds? What are the violin-sounds but vibratory effects? And if you produce chosen vibratory effects with your own voice in your own body, who shall place a limit on the things you may do to yourself?

Have you ever observed the action of a dog, deer or snake when certain tones are played? Vibration? It

would be a daring man who would set a limit to the meanings and uses of sounds—sympathetic, significant and mystic sounds.*

Such is the foundation on which I have built. Would you try the application of these ancient truths? Here then, is the method you must use.

Vowels for Health.

You first imagine the vowel; you imagine it emotionally. Then you hum it. Each vowel so imagined so hummed or breathed, has its own particular field of action.

The "E" type affects the palate, throat and head.

The long "A" type as in "ape," reaches the gullet, throat and larynx.

The broad "A" type, as in "father," touches the upper part of the lungs and chest.

The long "O" type, as in "on," goes deeper into the lower lung, chest and diaphragm.

The "OO" type, as in "school," works on the liver stomach and intestines.

All told I have worked out thirty-two sounds and combinations which can be applied according to the needs of the individual.

The method of their application is simple. It consists of four stages, as follows—

First, you prepare yourself as for a *sacred action*. By that I mean that you collect and concentrate your

* These are what are called "Mantras" in India.

thoughts on the particular feeling appropriate to the vowel. This is utterly essential. Without it the exercise is far less effective. Suppose, for instance, that you are starting with "E". Assume with your mind and with your countenance, a light and happy expression, with your lips half smiling, and your eyes narrowing and showing your pleasure. Let there be nothing enigmatic about this. Let it have no mystery and no reservations. Make it real. If you should try to combine with the "E" the mood that goes with "O" or some other vowel, the exercise would be robbed of its effectiveness, both for your mind and for your body.

Second, having prepared yourself as for a sacred action, you inhale, with shut mouth, on this soul-formed gesture. The breath taken should be deep and complete. Try "E" in this manner.

Third, hold your breath; hold it for one, two, three or four seconds, according to your condition, and what you can easily do. Later you will increase the time. While holding your breath, keep your mind clearly on the vowel. There is a reason for this, as you will find when you have become more experienced with the method. The involuntary organs which are affected by the particular vowel you have in use undergo a certain tension and certain changes in the blood supply owing to the activity of the sympathetic nerves you are setting in action by your thought of the vowel. If this sounds absurd I can't help it. I am dealing with facts. The thing happens. It has been tested out in the laboratory by the most delicate instruments known to science; it

has been put under the X-Ray by the great Professor Hajek of Vienne; and the result is a simple matter of record.

Internal Massage.

This change in the internal blood supply is a kind of internal orthopedic massage. It cleanses, it removes waste matter, and it carries nourishment and building material to starving and ill-nourished cells. It is mild, it is gentle, and the results, if persisted in even for a few weeks, are amazing.

Fourth, having prepared yourself by visualizing the vowel, and having next inhaled upon that vowel, still visualizing the vowel, you now exhale, humming the vowel itself and never releasing your imaginative hold upon it. For instance, "P-EEEEEEEEEE", etc., till your lungs are as empty of air as you can readily make them without extreme effort. Repeat the whole operation and try doing it every day before meals.

Do likewise with "PEOOOOO-HOOOOO", etc. Note the shift to the *aspirate* "H". It gives an *extra impulsion* which is important. The "PEOOOOOOOOOO" type should be uttered as if it were being blown out through pointed lips. The appropriate feeling to go with this vowel is grave which does not mean anything depressing or melancholy.

I cannot too strongly insist that this method should be done exactly as I have described. It is as easily done right as wrong. Done wrong, it is worthless.

In an article of this scope, it is not possible to give all the vowel combinations and their uses. I can however, set down the most important. They more than cover the needs of most persons.

The "E" type has its effect upwards. It acts powerfully on the heart and the brain. It is especially suited in cases of headache, and for some forms of heart trouble. It has an excellent effect on persons of the so called bilious type, those given to moodiness and irritability.

The "A" type as in "labor" cleanses and renovates the throat, larynx, and glottis. This type is especially popular with singers, teachers and others who continually use their voices. It gives tone to the mucous membranes involved. It acts on the thyroid gland, the enlargement of which is known as goitre, and I have seen hundreds of cases of goitre of long standing blown away, so to speak by the persistent use of this exercise.

The "A" type as in "lah" works on the gullet lifts the upper three ribs, and stimulates the brain. It prevents heart-failure and has pronounced effect on the upper lobes of the lungs, where tuberculosis generally starts and should be used by persons predisposed to it. This same type is indicated for persons who have to work in a bad attitude and in badly ventilated rooms.

The combined "AO" type as in "water" goes somewhat deeper. It vibrates the middle of the chest. It is beneficial after pneumonia or pleurisy, and clears up the scars which these diseases leave.

The "O" type as in "God" influences the region of the heart. The gesture is one of awe. The type should be applied only after preparation and proper direction.

I have worked out a special exercise for vibrating the heart, which I call 'mmmmmm-Pommmmm'. This may only be done once a day, and should be avoided by persons with a weak heart until they have worked up to it by exercise "mmm Pommm PAAAAEEEEEEEE".

The "OE" type, as in the German word *Moire*, works on the diaphragm, liver and stomach region.

The combined "OOII" influences the kidneys and is felt plainly as an upward orthopaedic massage. The "V" is the German modified U, as in *Uebel*. If you have never learnt this sound, start to say "u" and make it "ye" instead, holding your lips as if for "u" and you'll have it.

The "OO" type as in "smooth" acts on the organs of the whole abdomen I call it the abdominal type. It can cure constipation of long standing. Women find it beneficial in its effects on the pelvic organs.

The combined "OO-EE" type acts directly on the rectum and restores tissue tone of that often neglected and abused part.

Beginners should start with the "E" and "OO" types five times each before meals. Sick persons will find three times enough.

Later come the three types "E" "AI" and "A." These I call life's treble accord, because they are beneficial to everybody.

CHAPTER IX.

Instructions for Women in Special Conditions.

Every woman has to pass through two critical periods of life, viz., the time of the first appearance of menses and the period of natural cessation of menstruation. The former occurs generally between the 13th and 16th year of the girl and the latter between 45 and 50 years of age. This latter condition is known as "Menopause" or Chango of Life.

Both these conditions are often accompanied with painful ailments in the case of females who do not observe the rules of health, such as diet, exercise etc. But the girls who have been taking systematic Sūrya Namaskār Exercise since their childhood regularly and continuously, are found to be entirely free from this periodic menstrual trouble. And in the case of elderly women who took to this divine Exercise even late in life, all menstrual disorders and ailments vanished and their menopause was natural and therefore painless.

Dysmenorrhoea (difficult and painful menstruation) is a wide-spread complaint. It incapacitates and decreases efficiency and leads to much loss of time to those who are in business. In such cases most help will come from the Sūrya Namaskār Exercise, which invariably improves the posture of the body and strengthens and frees the muscles and ligaments of the pelvic region.

and spinal column better than any other measure. And this Exercise, when done with deep breathing, will bring the diaphragm into play, will mobilize the parts and free the circulation of the pelvis.

An interesting summary was given in a recent issue of the "Lancet", and it shows the significance of painful menstruation in daily business life. An inquiry was made into the habits of 7000 women working for a Life Assurance Company to see why so much time was lost through this complaint. It was shown that among the total number of employees there were 1151 days of absence and 2670 periods of rest during a period of six months, simply as a result of this complaint. Exercises were instituted as a method of treatment and the simple exercise of *contracting and expanding lower abdomen* without any special breathing movement was sufficient to bring about a definite improvement, so much so that 90% were benefited by this treatment and there was a decrease of 53% in the loss of time to the Company. The doctor in charge reported that exercise definitely benefited and *decreased incidence of pain*.

As we strongly recommend the Namaskār exercise for women—young and old maids and matrons, whether pregnant or not, and whether smoking habees or not, the following instructions, based on actual experience, will be found useful to women folk in special conditions:

- 1 The Namaskār exercise should be suspended during the menstrual period, viz., from the time the menses actually begin to flow till they stop. The normal

period being from 4 to 6 days. The exercise should be recommenced immediately after the cessation of the discharge.

2 If a lady is in the family way she may continue the Namaskār exercise as usual till she completes the fourth month of pregnancy. From the fifth month to the end of the seventh, the exercise should be modified, viz., instead of prostrating herself, she should sit from the standing position and kneel down and do other movements, the hind in this case may or may not touch the ground. From the beginning of the eighth month till child-birth she should sit or squat in any way convenient to her and only recite the Mantras loudly and clearly several times without doing any movements.

3 Even after the suspension of the Namaskār or other exercise, no pregnant woman should sit or lie down in laziness, but should do light and pleasant work, such as domestic duties, walking in the open, garden work etc., almost till child-birth.

This rule applies to a girl or woman who is unwell, i.e., affected with catamenial discharges.

4 1 or two or three months after parturition or child birth the mother should not do the Namaskārs. After this period she can safely resume the Namaskār exercise gradually increasing it till she reaches her usual number within about two or three weeks. Resumption of the exercise after child-birth should be undertaken on the advice of the doctor.

5. Whenever a girl or woman cannot take or is prevented from taking any bodily exercise otherwise than by ailment or disease, she must, as a rule recite the Mantras loudly and devoutly five, seven or nine times daily.

6. A woman should not begin to learn Sūrya Namaskār Exercise in her gestation period. She may do so before or after that period.

7. Apart from the above special conditions, women-maids or matrons-should follow exactly the same rules that govern men in performing the Sūrya Namaskārs



CHAPTER X.

Replies to Sceptics.

With the Peshwas disappeared the hardy race of the Bapu Gokhales, the Bhawanray Pratinidhis and the Sahadji Sindes, and they were succeeded by a race of Government officials, whose birth, training and tradition were diametrically opposed to their predecessors. This new nobility held up before their children the ideal of study at the cost of health, of success in examinations, and of securing Government service. They laughed and scoffed at the health and animal spirits of their own and their neighbours' boys and delighted to taunt young men with being fit for carrying water and doing similar menial offices in the house of their more fortunate (because of early examination-passing and early Government service getting) brethren. This attitude towards physical exercise was the dominant feature of the last two or three generations, and one is not sure that it has disappeared altogether even now. Signs of hope, however, are clearly discernible in the present young generation in their love of sports, gymkhanas and the boy-scout movement. But one feels doubtful how far these movements have developed a real love for physical health and efficiency.

A conquered nation gradually loses its self-confidence and ultimately becomes almost a blind follower of the conquering nation in its superficial forms of conduct and vices and not in its characteristic virtues such as

patriotism, self-sacrifice, unity, self-respect, etc. In those degenerate days, people who have lost confidence in themselves are fond of railing at their ancient culture. Most men are swayed by the fallacious argument that had their ancient civilization been good and sound, they would not have been reduced to the present deplorable condition. When some enlightened and cultured persons even make light of our ancient civilization, it is no wonder then that the common run of people, especially the young generation, should entertain the same view, and try blindly to ape the foreigner in almost everything, and not only betray mimicry in the mode of eating, drinking, dressing, talking, walking, etc., but think that their own religious ideas and conduct should be moulded according to the Western pattern. But being quite ignorant of what works exist in our ancient Vedic, puranic and scientific literature and of what subjects they treat, the ordinary people can hardly be expected to know or search for the secrets or truths our literature of divine authority contains. Adding importuness to ignorance, they turn up their nose at and even vilify our Vedas and Shastras, disparage our ancient culture, and stigmatize our Purans as "Shingla slang," and as a consequence, give up or try to give up their ancient culture all at once. Such is the degenerating influence brought about by blind imitations of the West.

On the other hand, those who had full faith in the Mantra-Shastra and studied our books such as Rudrayamala, Patanjali's Yoga Shastra, etc., were not able to make their teaching acceptable by presenting it in terms of modern medical and hygienic science.

We had, therefore, to wait till a Cune appeared to teach us the value of "Japa" or a constant meditation upon an idea, or a Lesser Luvatio came our way to tell us what psychic and therapeutical values were contained in the Bija Letters, or a Haddock appeared to instruct us in the value of will-power, or a James arose to enlighten the world in respect of the science of psychology. Any one who reads the works of these authors even cursorily and compares their teachings with those of our noisier "rishis" will not fail to be struck with wonder at the deep wisdom of the latter and to bow down his head in speechless adoration.

Quite unarmed as they were with the mechanical appliances available to modern science, our "rishis" discovered truths which elicit our warmest admiration today. A few of the most striking are herewith cited.—

(1) It might be news to most of our readers to be told that the catheter is mentioned in the Atharva Veda, whose antiquity cannot be brought later than 3000 B. C., and that the surgeons of the times of the Rigveda could fit up a metallic leg to a woman so as to enable her to move about.*

* (१) प्रतिजंवां विदपलाया नधत्तम् ॥

And a new leg for Vishpala provided.

Rigveda 1, 118, 8

(२) चरित्रं हि चारियाच्छेदि पणमाजा खेलस्य परितवम्यायोम् ।

सद्यो जंवामादसीं विदपलायै घने दिते सतये प्रत्यधत्तम् ॥

ऋग्वेद, १, ११६, १५.

When in the time of night, in Khela's battle a leg was severed like a wild bird's pinion, straight ye gave Vishpala a leg of iron that she might move what time the conflict opened.

—Rig. Griffith P. 156

(2) The ancient Rishis appear to have known something of higher mathematics also. They were very fond of using a phrase which may be rendered :— " If infinity be subtracted from infinity, the remainder is infinity. " †

(3) There is a story in Purans that Soma married the 27 daughters of Daksha and that four of them brought forth the four planets—Mars, Mercury, Jupiter and Venus. It was only the great astronomer Bentley who could read in these marriages a concealed reference to the conjunction of the Moon with the several planets in those constellations. Bentley's calculations were checked by Hindman and it may now be asserted that the Puranic story refers to astronomical phenomena which took place within the course of sixteen months about 1424 and 1423 B. C.

(4) We learn from the testimony of Greek historians that at the time of Alexander the Great there were physicians or Vaidyas in the Punjab who could successfully cure cases of snake-bite, and whom Alexander was perforce compelled to engage when his Macedonian physicians confessed their inability to deal with such cases.

(5) The researches of Mr. Clements and the late Rao Bahadur Deval of the Philharmonic Society of Western India, are well known to many. Rao Bahadur Deval has shown that the theory of harmonical progression as worked out by the Indian author of the " Sangita

† पूर्णस्य पूर्णमादाय पूर्णमेवायशिष्यते ॥

"Ratnakar" may be described almost in the same words used by the great physicist Helmholtz. And it should be remembered that the author of "Sangita Ratnakar" had no tuning fork with him.

(6) Modern researches in science, conducted by eminent scientists like Sir Jagadish Chandra Bose, have proved that the Moon exerts her influence on the vegetable kingdom.

In "Physical Culture" for April, 1927, Bernarr Macfadden says :—

Only recently have scientific men found that the light of the Moon, being polarized or reflected light, has a very stimulating effect on vegetation, so that the old belief of the farmers that root crops should be planted in the dark of the Moon, and foliage crops in the light of the Moon, would seem to be borne out in spite of what scientific men have hitherto dubbed as rustic superstition.

Mark what Shri Krishna says in this connection in his Gita, Chapter XV, verse 13 —

पुष्पानि चान्ध्रीः सर्वा सोमो भूत्वा रसान्मकः ।

I, in the form of the Moon, who is the very life of all the vegetable essences, rear the whole plant world.

The foregoing instances will doubtless suffice to convince a thoughtful modern sceptic of how solemn, deep and far-reaching are the thoughts of the ancient rishis and authors of India, and that he must think thrice before scoffing wholesale at the ancient Vedic and Puranic literature.

Nor is it suggested that the reader should take

things on trust. Everyone can do the Suiya Namaskār with the Bija Syllables and see what benefits accrue.

Further Objections Answered.

One often hears men and women, who ought certainly to know better, asking, in all seriousness whether physical exercise is advisable or necessary in the case of women, children and old men whether Maatras have any practical value whether there is any necessity of the sūtra to fix one's mind upon etc., etc. Such objections will now be answered.

1. Exercise for Women.

To those who hold that women do not need any exercise it should be emphasized that woman—the mother—is, as the Indian poet says, 'The mine of heroes and great men' †, and that you cannot expect a weak and sickly mother to bear healthy, strong and long lived children. The *summum bonum* a girl should aspire after is to become a good strong, healthy mother. Motherhood is a divine privilege. It is only a *strong and healthy* mother that will bring into the world splendid, healthy and stalwart children.

The physical standard of any nation is based upon the general physique of its *women*.

Is the present generation of our young girls and women a model of physical perfection? No one can deny that they are not.

† नारीनिदा मत करो । नारी नरकी खान ॥
जिस खानसे पेदा हुवे । श्वर पेहलाद समान ॥

—Kabir

Is it not a fact that in most cases they come of parents who have rarely enjoyed normal health?

Is it not a fact that so-called girls' schools in the cities "are" no more than mere pens, in which they are made to sit three hours in the forenoon and two hours in the afternoon with no adequate provision for outdoor play or games, which are all the more necessary since the old mode of life is changed and girls no longer take their part in laborious household duties, such as grinding and pounding corn, drawing or fetching water, doing the family washing, etc., and when the old games such as—*phugadi*, *zimma*, *kombda*, etc., are no longer in favour?

Is it not a fact that the modern girl attains what may be called a diseased precocious mental puberty long before her body is properly developed to enable her to fulfil her duties as wife and mother?

Is it not a fact that many of our young women and girls fall victims to the dreaded tuberculosis and other diseases?

Is it not a fact that our maids are averse to marriage because of the duties of motherhood?

Is it not a fact that there is a general dread of motherhood in the minds of our young wives, nay, young wives throughout the world?

Is it not a fact that there is an appalling infant mortality amongst our city dwellers?

Is it not a fact that very few young mothers are able to suckle their children and that the widely-advertised "foods" have to be depended upon simply because the mother is a mother when she is hardly fit to be one?

Depicting the present generation of civilized young women, John Galsworthy observed in his novel, 'The Silver Spoon,' "Flat as board behind and before." This still holds true of the vast majority of young women from China to Peru.

Leaders of nations like Mussolini of Italy, Hitler of Germany, etc., are shifting the emphasis to feminine physical culture, because no race can be fit unless *both* the parents are *equally* well-equipped physically and mentally.

The only remedy to improve this most deplorable state of things is to put our girls and women through a scientifically designed course of physical culture like our Sūrya Namaskāra. There is no doubt at all that girls and young women derive benefit from these Namaskāra. Indeed, cases are known of matrons of fifty who only after a short course of these Namaskāra have almost regained their youth. Hence for maid or matron, for sweet seventeen or ripe forty, Namaskāra are the ideal exercise.

To those readers who can afford it we recommend at least a cursory perusal of numerous magazines and books on physical culture that have recently been published in India, Europe and America and of the large output of literature about the science of eugenics. All who study these carefully will be convinced that the same course of physical training as is prescribed

for men is also beneficial for women, with, of course, a few minor adaptations

Girls & women in great numbers have benefited from Sūrya Namaskāra in bodily and mental health and in general appearance. We vouch for this personally

2 Vital Capacity Limited.

Many people are afraid of doing physical exercise lest they suffer from heart affections indigestion, or be muscle bound. Recently papers also are devoting articles to discussions about professional athletes and wrestlers dying prematurely of heart trouble indigestion, etc

To these alarmists it can be replied that none of these evils is due to *any system* of exercise, let alone Sūrya Namaskāra. Most Indian pahlwāns are obsessed with the notion that one who can do 500 'danda' or "jora" is necessarily stronger and healthier than one who can do only 400 though the latter might really be the stronger and healthier of the two. Dominated by this wrong idea, the pahlvān always seeks to advance his muscular system over his vital capacity, and as a necessary consequence suffers either from heart-affections or muscle binding. As to indigestion the number of victims claimed by this ailment is very large indeed. The pahlvān's logic is that the more food he can consume the stronger he is. While youth and vigorous exercise continue, his faulty logic appears to him convincing enough, but when age comes on and forces upon him the wisdom of reducing his exercise, he is yet unwilling to learn the more important lesson of reducing his diet

also Instances of harmful effects from exercise, are mostly due to over-eating, wrong eating, or, to stimulating and other devitalizing excesses. It is this love of gormandizing that is responsible for all the ills from which a pahlwan - and many an ordinary person as well - suffers in after life. The system of exercise has absolutely nothing to do with it. Dissipation kills an athlete or pahlwan, athletics or exercises do not.

Bernarr Macfadden in his 'Book of Health,' says:-

There is no more dangerous fallacy in the world than the idea that the strength of the body is maintained solely by our daily food, and consequently that the more we eat, the more strength we have. This is by no means the case. In fact, it has been demonstrated that those who eat *last*, are often possessed of the *greater* energy.

"Vyāyāni" a monthly magazine of Baroda, published in its March, 1925, issue a brief account of Captain Phaniendra Krishna Gupta. There it says:—

In his efforts to surpass his rival athletes and wrestlers, he ate too much of hard foods by way of regimen like other wrestlers and was soon down with indigestion. Now he does 2000 'danda' and the same number of 'baithaks' every day and yet his daily diet is very simple and apparently meagre, consisting of rice, pulse and a little fish, like that of an ordinary man.

Thus professional wrestlers and athletes ruin their lives in both ways: by over-exercise done too fast and by over-eating.* Many athletes die in middle life because of heart-strain and over-eating. It is one thing

* The truth is well borne out in the Marathi proverb — "अचाट खाणें मरणान जाणें." Cf. "Modern man digs his own grave with his tooth."

to be strong and quite another to be healthy. Many people confound strength with health.

It is, therefore, that our wise ancestors have included the Pranava, Bija Syllables and Vedic Hymns in the Sūrya Namaskāra. These Mantras, etc., in addition to being prophylactic and therapeutic, keep one free from over-strain. When systematically performed, a round of 25 Namaskāra accompanied by the Pranava, Bija Syllables and Vedic Hymns, will not take less than seven or eight minutes.

Let all alarmists, editors and our critics, therefore, take courage and address themselves manfully to a course of Sūrya Namaskāra, and there can be guaranteed to them a vigorous youth, a hearty and active old age, and, more important than either, *healthy children*.

3. Giving Publicity to Wisdom

Some Dharma - Mariages (Knights Errant-Erring-of religion), who pose as the preservers of our Vedic religion, charge with sacrilege those who are making these Bija Syllables, Pranava and Vedic Hymns known and accessible to the non-Brahmans. To these it should be pointed out that when their sacred books have been studied from cover to cover by savants of Germany, France, England, America &c, it is no part of wisdom to keep such knowledge from our own people, Brahmas or Non-Brahman. The shastras contain many powerful mantras, but they yield their fruit only to him who possesses the necessary courage and perseverance to pass through the severe discipline required. A more

knowledge of the words and syllables is useless, for it must always be remembered that you get out of your exercise, as you do out of life, *what you put into it.*

It may also be pointed out that the Brahmans of old have been rightly or wrongly charged with deliberate concealment of wisdom from their non-Brahman brethren. It is not necessary here to examine the justice or otherwise of this charge, but the fact should be impressed upon our readers that nothing should give us more genuine pleasure than to see our non-Brahman brethren do these Suiya Namaskars. To the Brahman it should be pointed out that when intelligent and scientifically minded foreigners like Lesser Lacroix have, by altogether independent lines of research and enquiry, lighted upon the secret of the vowel sounds or the rudimentary Bijā Syllables, it would be the height of folly to conceal the wisdom of the 'rishis' from their own people.

4 Building Good Foundations

It is hardly necessary in these days to emphasise the necessity of physical training in the case of young boys and girls. The foundations of a healthy physical life should be laid as early as possible and it is far wiser to *form habits of exercise and health* than to seek for lost health, when it is perhaps too late, and then to rail against exercise or one's misfortune.

5. Practical Way of Postponing Old Age.

The case of old people stands on a footing of its own. There are men and women who have reached old age after a clean, plain, useful and strenuous life, and to such it is suggested that they submit themselves to a moderate course of Sūrya Namaskāra in order that their useful and active life may be prolonged so as to enable them to accomplish the beneficial objects which they have at heart.

There is another class of old people on whom senility is forced by misfortune in the shape of compulsory residence in crowded cities, sickness, bereavement or other reverses in life: to such the course of Sūrya Namaskāra is eminently useful in that it ministers not only to the body but to the spirit as well.

The third class of prematurely old men consists of those who have played ducks and drakes with their health and youth and have thoroughly ruined their constitutions and have been given up by doctors. Even to these old sinners there can be held out a promise of redemption, if they be like children and follow faithfully the course of Sūrya Namaskāra.

It has been said that people begin to die the moment he is born. The inevitable end, however, can be postponed for a long, long time, if only we learn to rid ourselves of the products of decay by proper

exerciss, simple natural diet and clean life. If we ever really learn to do this, we should, barring accidents, live far beyond the limit of one hundred years.

It is not mere longevity or extension of life that counts, but whether one has achieved a great measure of usefulness and happiness, whether one has made any contribution to the world's well-being and whether one has been doing all what one can do for oneself and for mankind at large, is what matters. This can be achieved by systematic, regular and daily performance of Sūrya Namaskāra with Pānava, Bija Syllables and Vedio Hymns.

. The Value of the Sun.

The Sun is the source of all life. "To have good health you must have sufficient sunlight. For pure morning and evening sunlight builds rich blood, tones up the entire system, clears the skin, builds resistance to disease and gives you the glowing energy and appearance of radiant youth".

A great majority of the present generation, however, say why the sun should be bowed to and that Mantras and Tantras are all humbug. "I have," said a gentleman to the writer recently, "absolutely no faith in the mantras. I won't say any mantras in doing Namaskāra." These are simply referred to Lesser Laxmi, already mentioned, and to what Ernst Haeckel, a most determined free-thinker and scientist of

Germany, says in his famous work "The Riddle Of The Universe," Chapter XV.

Haeckel says :—

"The sun is the deity of light and warmth on whose influence all organic life insensibly and directly depends. Sun-worship (solarism or heliotheism) seems to the modern scientist to be the best of all forms of theism, and the one which may be most easily reconciled with modern monism. For modern astrophysics and geogeny have taught us that the earth is a fragment detached from the sun, and that it will eventually return to the bosom of its parent. Indeed the whole of our bodily and mental life depends, in the last resort, like all other organic life, on the light and heat of the sun. Hence in the light of pure reason, sun-worship, as a form of naturalistic monotheism, seems to have a much better foundation than the anthropistic worship of Christians and of other monotheists who conceive their god in human form. As a matter of fact the Sun-worshippers attained thousands of years ago a higher intellectual and moral standard than most of the other theists. When I was in Bombay in 1881, I watched with the greatest sympathy the *devoting* rites of the pious Parsees who standing on the sea-shore, or kneeling on their prayer rugs, offered their devotion to the sun at its rise and setting."

Had the great philosopher scientist observed people like us actually doing Sūrya Namaskārs, he would certainly have been much more sympathetically impressed.

The following additional quotations will convince the sceptic reader why the sun in particular is held as the object of worship in our Sūrya Namaskārs —

(iii) Gardner Roney in "Physical Culture" for July, 1926, says.—

"Bathe your body in the sun. The Sun is the greatest of all healers. It is the source of all health, says science."

"And today, throughout the world, tuberculosis, pneumonia, eczema, colds in the head, and pulmonary disorders generally are being cured with regularity, speed and certainty by this new method called Heliotherapy."

(iv) Dr. Hess, the foremost authority in America on the curative powers of the Sun's rays, declares :—

"Sunlight is the source of all foods, the stimulant, tonic and healer incomparable. Educate the public to an understanding of its importance to health and the entire race will be better, healthier and happier."

"Sun, Air and old Mother Earth, the new studies are teaching, are the *trinity* through which *mankind* may be revitalized and recreated. That all three have definite therapeutic values upon which the human organism is dependent for its *physical, mental* and *spiritual* well-being, science knows."

(v) Dr. Rollier, the founder of the "School in the Sun", in Switzerland, is a pioneer of the realm of heliotherapy sun cure. He was one of the first to discover that sun-light was just as necessary to the growing child, and to everybody else too for that matter, as it is to the growing plant, and in exactly the same way, that is, in *direct* contact with the skin.

Dr. Rollier observes :—

"Sun-bathing ought to play just as important a part in the school programme as gymnastic work, and the two can often be combined. Recreation and physical training should be so arranged as to have the benefit of the *early morning sun*, and the children should take them with their bodies exposed."

— "Physical Culture" for Aug. 1926.

(vi) Leonard Williams, M. D., says, in his article 'Vitamine in the 'Encyclopaedia Britannica', New clames, Twelfth Edition :-

"It (anti-scorbutic factor) is present in large quantities in uncooked fruits and vegetables, and it is interesting to note that is popular idea that the foods which have been *Lissed by the Sun* are a greater value than those which have not, finds some justification in the fact that vegetables grown above ground are much richer in the *anti-scorbutic factor* than root vegetables."

(vii) "Scientific American," April, 1937, states —

"The milk of cows fed and kept indoors all day does not contain enough of vitamine D, which is essential to growth and health and which prevents rickets. To produce this vitamine D a cow needs to get out of doors into the ultra-violet light of the Sun"

(viii) Dr S H Belfrage; M D, in his book "What's Best To Eat?" p 26, says —

"The electrical energy which pervades the living universe is derived so far as this earth of ours is concerned, from the Sun in the form of light and heat. It is under the influence of this energy derived from the Sun that the *dead* material of the universe becomes endowed with sufficient energy to form *living* matter"

"Under the influence of the *sunlight* and by the virtue of its *natural* energy, the plants knit together the lifeless elements—oxygen, hydrogen, nitrogen, iron, phosphorus, etc., — into compound substances from which the higher forms of life can build their bodies"

"Thus we see that the *plant world* is a vast electrical accumulator from which the *animal world* derives its energy and that that energy — the energy that we expend every moment of our lives — is *ultimately* derived from the Sun."

(ix) "All energy on this earth, organic or inorganic, is directly or indirectly derived from the SUN. The flowing water, the driving wind, the passing clouds, the rolling thunder and the

flashing lightning, the falling rain, snow, dew, frost or hail, the growth of plants, the warmth and motion of animal and human bodies, the combustion of wood, of coal all is but solar energy in action "

—Charles F Haanel

Author of The Master Key System

' The New Psychology &c

(x) " Our God, the Sun, is beyond all defilement and beyond the reach of the most brutal iconoclast "

—V R Guttikar

(xi) " Sun-worship is not idolatry "

—V R Guttikar .

(xii) " I here mention some of the diseases in which I myself and other men have found these rays [ultra-violet rays] of value skin ulcers, baldness, eczema, psoriasis, lupus, etc Alimentary system—ulcers of stomach, haemorrhoids Consumption and tuberculosis Weak circulation and some heart affections Catarrhs Neurasthenia Ear and eye cases. Throat cases Melancholia Neuritis, &c &c "

—J Stenson Hooder M D (Lond)

in Health and Efficiency for June 1903

(xiii) " The Sun is the original source of all life Take away these rays, exhaust the sun's energy and out will go life on the planets When one considers for a moment what the sun has made possible, what the sun has actually brought about and perpetuates, it is little wonder that this light of all life should receive humble homage in the form of sun-worship by primitive peoples

" Dabies are strengthened in every organ, tissue function and cell by sunlight Their resistance to disease is heightened to a tremendous degree when their bodies are exposed to the sun's health giving rays

—Dr F C Gray M D

in Physical Culture for Aug 1903

xiv) Ultra-violet rays of the sun or ultra-violet spectral

rays are the only reliable source of vitamin D. Vitamin D is absorbed by the blood when the bare skin is exposed to the sun and rays from a quartz mercury vapour generator. Also foods exposed to such rays absorb and retain vitamin D. This vitamin prevents and cures in children, rickets, deformity, bone disease, anemia, under-nourishment and other forms of mineral malnutrition. And in the case of adults, this vitamin prevents and cures auto-intoxication frequently terminating in rheumatism, neuritis, diabetes, Bright's disease, &c "

— Dr. H. C. Menkel, M. D.,
in "The Oriental Watchman & Herald
of Health" for October, 1924.

(xv) An Italian proverb runs --

"To bathe in water is good, in air better, but in *sunlight* best of all".

(xvi) Look to the sun for health and happiness!

All creatures and plants—human, animal and vegetable life—thrive in the beneficent rays of the glorious orb

— Dr. Benedict Lust, M. D.,
Editor, "Nature's Path," Sep. 36

(xvii) If still the reader entertains a doubt about the value of the sun we refer him to James Arnold Crowther, M. A., Sc. D., P. Inst. P., Prof. of Physics, University of Reading, England, who says in "The Great Design" (1934) P. 47.— "Radiations do not only travel, they carry energy with them . . . Our power to act, our very life in fact, is bound up not with the limited and diminishing energy stored up in the cooling planet on which we live, but with the bountiful supplies which *radiation* brings to us from the *sun*".

7 Cheapness.

Some who take a cynical view of Surya Namaskārs say that this exercise is made much of on account of its cheapness. But is cheapness a merit or demerit?

Will not the cheapness place the exercise within reach of all?

Yes, Sūrya Namaskārs cost nothing. But cheapness is not the sole merit they claim; it is one of the many merits which make the exercise superior to any other. (See Chapter XVI.)

This excellent exercise develops not only the muscular system but the entire nervous system as well, and makes all the important glands and other internal vital organs function normally.

“ Until quite recently very little was known about the action, secretion and effects of what is known as the endocrine or ductless *gland system* upon the human body. But science has at last shown us that forces which govern life both physical and mental - the forces which promote the growth of the body and make or unmake beauty of face and symmetry of bodily form - are secreted by the *glands* of the body.”

Hence it is not the cheapness alone upon which the supreme importance of the Sūrya Namaskārs is based.

8 Monotonousness.

Another objection recently raised against the Sūrya Namaskārs is that the exercise is monotonous and uninteresting.

It will be admitted that it is tediousness and wearisomeness that bring in or produce monotony. The Namaskār exercise, which according to our system requires from 15 to 30 minutes only, consists of a

large number of different springlike, quick and buoyant movements of the body, giving tone to each and every part of it, can never be monotonous in any sense of the word.

We don't see why this should be so any more than eating, drinking, clothing, or anything else we have to do every day. A considerable amount of pleasure can be derived from this Namaskār exercise, if it is undertaken in the *right spirit*.

Besides we have to put our mind in every movement while doing the several positions of the exercise, which yields a good amount of interest throughout the time that we are doing the Namaskārs.

Mind and body must be developed and strengthened to the very limit in order to bring out one's innate ability. By adhering to the Sūrya Namaskār Exercise in this way the spirit of youth can be maintained nearly to the end of life. When the enthusiasm of youth can thus be retained beyond middle age, we are indeed possessed of wealth that cannot be measured.

The value of mind and will is too important to be overestimated in the performance of any bodily exercise and especially in doing the Sūrya Namaskārs.

The observation of F. G. Haddock, M. C., Ph. D., will further elucidate our point. Says he in his great book, "Power of Will". —

State of Will depends upon the condition of Physical health

Physical health is a goal of science and is reached through the resolute and persistent Will

Every rule of health deliberately followed becomes a developer of Will-Power.

Thus readers will see that in the exercise of Namaskārs, using the mind in every movement and thinking of Health, Efficiency and Longevity are essential to give proper results. Mind is, therefore, included in the eight parts into which Sūrya Namaskārs are divided. (See Chapter IV) Mind is really the Creative Force, back of great strenght, health and happiness.

In addition to developing mental concentration, the Sūrya Namaskār exercise has so many phases of vital interest that it need never become monotonous to the intelligent student. It builds up your physique, normalizes your bodily functions, distributes and conserves your energy, increases your disease-resisting power and it short gives you the glowing spirit of youth. If you wish to attain these worthy ends, you should make a hobby of Sūrya Namaskāre—the best course of physical and mental culture.

To be free from worry or tiredness and to keep healthy and fit for years together without an ailment—without even ordinary cold or cough—is a supreme happiness. And when this is attained by doing Sūrya Namaskārs regularly and systematically, can they be called monotonous and uninteresting?

9 Religious Tint.

Some atheists and non-Hindus shun the exercise of Namaskārs on the ground that it is a religious rite.

It is true that the Namaskār exercise has an appearance but an appearance only of a religious rite. But

it is not essentially a religious rite. Bathing and deep breathing are regarded by the Hindus as religious duties, as they give cleanliness, health and energy. Is bathing or deep breathing then ever taken objection to by atheists and non-Hindus? We must, with discretion, make a clear distinction between things essentially religious and those, which being good in themselves, are for that reason included in daily religious duties, and are, therefore, only apparently religious. Rules of health have nothing to do with dogma or blind religious faith.

Those who still object to saying the Pranava Bija Syllables and Vedic hymns in doing Sūrya Namaskārs, might substitute for them the vowel-sounds recommended by B. M. Lesser Lesario in chapter VIII., or any similar combinations of sound, or drop them without detracting much from the exercise. Omission of these syllables and hymns from the Namaskārs will, we hope, smooth the non-Hindus' path to Health, Efficiency and Longevity.

• • There can be no two opinions that in these days of keen struggle for existence, an enpeptic stomach is the best equipment for a young person to start life with and it can only be maintained if a course such as that of Sūrya Namaskārs is religiously or rigorously adhered to.

In this way the Sūrya Namaskārs, apart from any religious or spiritual benefit, will make for Health, Efficiency and Longevity.

CHAPTER XI.

PERSONAL EXPERIENCES.

Our Own Experience.

When young we studied wrestling under Inam Uddin, a well-known professional wrestler from the Punjab. We also practised "Jor," "Baithaks" and Indian clubs, but in accordance with the accepted doctrines of the old school of wrestlers, we used to partake of unnecessary fatty foods and thus put on an excessive amount of fat. In 1897 we read about Sandow, a famous physical culturist and purchased all his apparatus and books, and for full ten years practised regularly and continuously according to his instructions, with the result that the chest measurements remained the same, while those of the waist and abdomen showed a marked reduction. Since 1908, being influenced by the fact that a man advancing in years generally cannot spare sufficient time for athletics and finds them too fatiguing, we have been continuously, regularly and systematically doing Sūrya Namaskārs every day with Pranava, Bijas and Vedic hymns and the result has been a most remarkable lightness of body, buoyancy of mind and a general feeling of youthfulness which must be experienced to be understood. But the highest benefit is that during the past 35 years, we have been, except once in May 1935, when a short illness was brought about by accident, absolutely free, not only from fevers and other ailments, but never even suffered from a cold or cough which is regarded as inevitable even by some professional medical men. And the most surprising proof of the stamina and



Balasaheb Pant Pratimdh, n A
Rajasaheb of Aundh, (Age 72)

the resisting power of the body lies in the fact that though we submitted to plague inoculation no less than our times we had no fever and experienced no sort of muscular pain sufficient to prevent us from doing our daily Namaskāra. We submit that this 35 years' experience and study has qualified us to speak with a measure of authority that of all the systems of physical exercise, the Sūrya Namaskāra stand first and foremost in promoting vigorous bodily and mental health and in endowing one with an equanimity of mind which is not ruffled even under extreme conditions.

Now that the mystery of the Pranava (Ōm) and the Bija Syllables (hrām, hrīm, etc.) is clearly solved, we can positively affirm that Sūrya Namaskāra stand far superior to any other system of exercise.

The statement that during the past thirty-five years we have had except once, absolutely no ailment of any kind whatever, would naturally make the reader desirous to know what we eat, how long we work, how, in short, we spend the 24 hours of the day.

Here is our Daily Routine of Living.

3 to 3-30 A. M. — Getting up, washing the mouth and teeth and bathing.

3-30 to 4-30 A. M. — Sūrya Namaskāra.

4-30 to 5-30 A. M. — Morning worship.

5-30 to 6-30 A. M. — A brisk barefoot walk up and down the hill, 600 feet high, where stands our family Deity.

- 6 30 to 7 30 A. M. — Gazing at the sun and breakfast consisting of fresh cow's milk, with Ranisaheb and children.
- 7 30 to 9-30 A. M. — Going over the daily post and giving orders about State affairs.
- 9 30 to 10-30 A. M. — Hearing newspapers read while painting.
- 10 30 to 11-30 A. M. — Dinner.
- 11-30 to 12-30 P. M. — Reading.
- 12 30 to 1-30 P. M. — Siesta or midday rest.
- 1-30 to-2 30 P. M. — Literary work: writing, composition or other studies.
- 2-30 to 3-30 P. M. — Official work:— Correspondence. Examining the daily routine work of all the Secretaries, disposing of petitions, etc.
- 3 30 to 4-30 P. M. — Superintending sculptural, photographic, block-making and other art works
- 4-30 to 6 P. M. — Kirtan class-work and music
- 6 to 6-30 P. M.— Gazing at the sun and evening worship.
- 6-30 to 7-30 P. M. — Evening meal consisting of cow's fresh milk only.

7-30 to 8-30 P. M. — * Hearing magazines read.

8-30 P. M. to 3 A. M. — Sleep, which comes on with all soundness within five minutes after resting the head upon the pillow. We rarely dream.

If vigorous health, buoyant energy, freedom from disease and useful longevity are to be attained, the daily physical exercise should be coupled with simple, frugal, vital diet.

Breakfast

Our breakfast consists of about two cups of cow's milk, warm and fresh from the udder (without being boiled or sterilized or mixed with sugar) and a little cream with honey.

Dinner.

A little of boiled whole brown rice (rice with husk only removed and not pearled or even polished); only a half whole-wheat chapati; very little of whole pulse (entire grain with the thin skin adhering to the edible part) in the form of *varan* (* वरण), *amr* († अमर), or *usal* (‡ उसल), &c; one or two green (uncooked) and cooked vegetables without spices & condiments, a little of milk and milk products, such as curds, or churned curds, butter, ghee, *kadhi*, (§ कढ़ी) &c; and fruits, if any, constitute our dinner.

* A highly tasteful dish of pulse.

† A dish consisting of gram-flour boiled up with tamarind, some split pulse coconut, &c.

‡ A dish consisting of pulse boiled and fried with greens, etc.

§ A dish consisting of a little gram-flour boiled in churned curds spiced with turmeric, corn - etc.

Fruits.

Whenever available, a little quantity of fruits and nuts, such as mangoes, guavas, pomegranates, grapes, pine-apples, figs, oranges, almonds, cocoanut, peanuts etc., is taken with meals.

When fruits and nuts are added to meals, the quantity of rice, chapati and pulse is proportionately lessened.

Fried Articles.

All fried articles, such as, fritters (¶ भजी), *chivda* (|| चिवड़ा), *jilbee* (§ जिलबी), etc. and even *phoda* (+ फोड़णी) are generally excluded from our dietary.

Water Drinking.

We drink fresh, cool, spring water scented with some fragrant flower, as rose, jasmine, etc. We never drink water at meals but always an hour after meals and whenever we feel thirsty between meals.

Many ignorantly think that if a sufficient quantity of beverages other than water be consumed, water is not much needed and such may be dispensed with. There would be no greater fallacy. It must be emphasized that from a nutritive point of view there is *no* substitute for pure water.

¶ A small quantity of salted batter of gram-flour, mixed with thin slices of brinjal, onion, etc., fried in boiling ghee or oil, a fritter.

|| A medley of various parched grains, ground-nuts, cocoanuts spiced and fried together.

§ A kind of rich sweetmeat made from soaked white flour mixed with a dash of saffron, fried in ghee and soaked in boiling liquid sugar.

+ Oil or ghee heated with a little quantity of asafoetida, mustard seeds, etc. as a cooking sauce for vegetables, etc.

We eat nothing between meals, not even fruits, which, if any, are taken with meals.

Stimulants.

All stimulants and narcotics, such as tea, coffee, cocoa, tobacco, etc., are absolutely taboo. We don't indulge even in chewing betel leaves (*pan*) or arecanuts (*supares*).

"Here is a truth," to cite Barnarr Macfadden, "that is worth careful consideration. The less you eat to keep your health and strength, the longer these valuable possessions will be retained. If the meal were divided in half it would probably more accurately represent the needs of the average individual."

The following Marathi proverb brings out Barnarr Macfadden's idea very well:

"फार चाल तर थोडे चाल, थोडे चाल तर फार चाल"

"Eat little and live to eat much."

In addition to regular daily exercise, like the *Namaskāra*, and a wholesome frugal diet of vital foods, well masticated and eaten only at the dictates of normal appetite, frequent fasting—complete or partial—is needed.

Fasting.

On every Monday, Tuesday, and Sankashti Chaturthi (fourth day of every dark fortnight) we observe a partial fast, and on every Ekadashi a complete fast. The first nine days of the Navaratra in the month of Ashvin we live on cow's fresh warm milk only. For a month or two of every Chaturmās (the four months of the wet season) our diet consists of *Havishya* food, i. e. food which is not flatulent and is not hard to digest.

If you want to keep well for an indefinite period you have to make up your mind to observe a fast for a day every fortnight if not every week

If you have not tried and tested the exercise of Surya Namaskars with the diet and fasting as described here and elsewhere, we strongly urge that you try it

Evolution of the Present System of Surya Namaskars.

We are often asked the question, 'Is the method of Surya Namaskars, you are now advocating, being followed by you from the beginning?' "

Here is a brief reply, showing how the present system gradually evolved from the old method. —

It was in 1908 that we commenced to do Surya Namaskars regularly in the old style, according to which it was not necessary to straighten the knees while bending over, nor to bring the feet forward in a line with the palms, it being enough to place the feet several inches behind the line, and instead of standing erect to do each Namaskār, several Namaskars were done in the stooping position, and the Pranava, the Bija Syllables and the Vedic hymn were all recited lowly and rapidly in the bending posture. In our boyhood we were taught to do Surya Namaskars in this way. There are still many persons who follow this old style. A few of them at best stand for each Namaskar, but never keep the knees straight when bending over. In this way as many as five Namaskars could be done in one breath. While now *three* complete breaths have to be done in *one* single Namaskar.

On doing this exercise about a year after 1908, we one day tried to bring the toes of one leg forward in a line with the palms, and found that it gave a little greater strain to the abdomen and waist. This was the first item of improvement made in the old style.

When, on another occasion, we tried to straighten the knees when bending over to place the palms on the ground, we experienced a still greater stretching sensation in the calves, thighs, waist, abdomen, and throughout the back. This material improvement dates from this time.

Following the custom of the old school of wrestling and athletics, we when young, partook freely of fatty and proteinaceous substances, such as cream, butter, ghee, nuts, etc., when in training and even when not in training and consequently put on an excess of fat all over the body and especially round the abdomen. And as it was necessary to reduce the girth of the abdomen all such movements in Namaskāra as gave a vigorous stretch and compression to the abdomen were gradually introduced in the method.

The changes thus made in the mode of doing Namaskāra vigorously strained and acted upon the stomach and abdomen muscles, and gradually lessened within about six months our constipation, the greatest menace of the civilized man. Though sometimes the bowels fail to function early in the morning, they do open freely an hour or so after the Namaskāra.

When required to stand for a longer time in order to recite the Pranava, the Bija syllables and the whole

Vedic hymn, in the last three Namaskars, we tried to stand erect, with chest inflated and thrown forward and felt an appreciable strain in the abdomen and waist regions. Since then we assumed this attitude in every Namaskar.

When taking the right foot forward a studied pressure on the right side of the belly and a similar pressure on the left side in taking the left foot forward were found to stimulate the liver and spleen respectively. This improvement was, therefore, made in the old method.

With the introduction of these improvements over the old style, as we had to mark off the different parts of the body especially the stomach and abdomen received adequate pressure and stimulation we naturally stopped the old way of doing four or five Namaskars in one breath. And the simultaneous action of touching the ground with the chest and forehead necessitated the pulling up of the belly and this pulling up was greatly facilitated by a complete exhalation. Hence in every Namaskar complete exhalation was made when in this position the belly was drawn in.

When in the standing posture, the chest had to be widened and thrown forward, a full and deep inhalation proved a great help. Thus we began to take one full breath - i.e., one full inhalation (पूरक), one holding of the breath (कुम्भक) and one complete exhalation (रेचक) - in doing one Namaskar. And such full breath tended considerably to widen the chest and to reduce the fat about the abdomen.



Saubh. Rani-ehab of Aundh

Whenever then in different positions in performing the Namaskār the belly had to be drawn in, a complete inhalation was found very useful and effective for that particular movement. In like manner, whenever in doing the Namaskār the chest had to be widened, a full deep inhalation helped the movement materially.

In this way, *three* full breaths came to be included in performing *one* Namaskār only.

A careful perusal of the article by R. M. Lesser in the "Physical Culture" Magazine for April, 1924, induced us to say the Pranava and the Bija syllables slowly, loudly and clearly, which has proved of vital importance.

Putting all these observations and experiences to practical use, we gradually evolved quite a new system (out of the old one) of doing Sūrya Namaskārs as detailed in this new edition.

We have gone into all this at some length, because we feel that we have played our small part in helping our fellow men and in helping to change matters.

EXPERIENCE OF OTHERS.

Our Ranisāheb's Experience.

Girls and women doing Sūrya Namaskārs according to our method are being tremendously benefited in bodily and mental health.

Some of the benefits derived by the Ranisāheb from Sūrya Namaskārs are :—

(1) Strength of The Spine and Back.

Before she took to this exercise about ten years ago, she felt pain in the upper part of the spine, whenever she studied or worked for an hour or so in a sitting position. Now though she has been studying or working harder and longer in the same position, she feels no pain in that part or anywhere else.

(2) Normal Alimentary Canal.

She suffered now and then from stomach troubles, constipation, etc. They have all gone now.

(3) Normal Menses.

A number of menstrual complaints have disappeared since she began this exercise. Catamenial discharge continued as long as eight days attended with severe pain. Now it is normal in quantity and duration and without pain.

(4) Pain about her waist afflicted her now and then, but it has all ceased now.

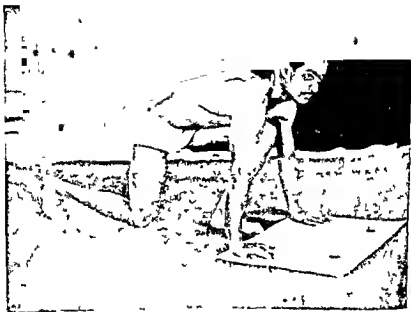
(5) Morning sickness & morbid longings of pregnancy, inevitable in modern woman, gradually diminished & ultimately vanished.

(6) Weakness subsequent to child-birth disappears more rapidly than before.

(7) Parturition is easier, quicker and almost painless.

(8) The children are healthier and stronger.

(9) She looks younger for her age, though a mother of eleven children.



My Son
Shrimant Appasaheb.
B. A., [Oxon.] Bar-at-law.

The Development of My Son Shrimant Parashuramrao alias Appasaheb.

A stalwart, healthy and strong young man whose wonderful development of body and mind is due to regular and systematic Namaskār exercise. Now 28 years old, he stands six feet and one inch & weighs 158 lbs.

Mrs. Saubhagyaṁvati Sitabai Kirloskar's Experience.

She commenced doing Sūrya Namaskāra systematically with Prāṇa Bija and Vedic hymns on the 16th July 1925.

The following are some of the material benefits attained within six months from commencement—

(1) All pain in the back and waist disappeared.

(2) Almost all the menstrual complaints, she suffered from before she commenced this exercise, gradually vanished, and all tendency to prolapse or falling of the womb quite disappeared. This shows that Sūrya Namaskāra when regularly and systematically done produce beneficial effects upon the uterus or womb.

(3) There were no more rheumatic complaints.

(4) Muscles in her arms, legs and bust became firmer, stronger and more prominent.

(5) Improvements in the quality of the blood. Complexion became appreciably redder, nails showed a rodder tint.

(6) Perspiration lost its unpleasant odor.

(7) Digestive organs began to function better.



Mrs. Saubh. Sitabai Kirloskar. Mother of ten children.



Mr. R. K. Kirloskar.

Ago. 81.

Mr. R. K. Kirloskar's Experience.

It is about eighteen years he has been doing the Sūrya Namaskāra with Bija Syllables and Vedic hymn every morning regularly and systematically. Though now 82, he does about 25 Namaskāra daily.

Before he commenced taking this exercise, he took two meals, but a few months later, he did away with his evening meal.

Among the benefits that accrued to him from the Sūrya Namaskāra may be mentioned the following —

(1) Absolute freedom from any physical complaint or ailment. He has had during this period not even cold, which before came on him at least once a year.

(2) He has not suffered even once from worms for which he had to take santonine once or twice every year before he commenced doing Namaskāra.

(3) The pain at the base of the neck and about the waist, which troubled him now and then has completely disappeared, thus showing that this exercise strengthens the spine, back and waist.

(4) Digestive organs are functioning more satisfactorily.

(5) His energy, physical and mental is like that of a young man of forty-five.

Mr. Pandharinath A. Inamdar's Experience.

He has been taking the "Sūrya Namaskāra" exercise since his 14th year.

He is also a keen sportsman and good swimmer. But all his physical development is due to Sūrya Namaskāra. His weight is 150 lbs, which is constant for the past twenty years, and his height is 5 feet and 10 inches which is worth consideration, in view of the fact that his parents were both very short.

**The Experience of Mr. Shankar Hari
Jaydekar, Head Master, Marathi
School, Indapur, District Poona.**

In the month of May, 1925, stomach-ache began to afflict me daily at about 2 P. M. The pain gradually increased to such a pitch that despite the varied treatment of doctors and physicians at Indapur, I felt as though several scorpions stung me in the stomach. Then I went to Poona, where I placed myself under the treatment of a well-known medical practitioner for ten days. There was slight relief, but the pain was there.

I returned home to Indapur and continued to take medicine and regimen as prescribed by the Poona doctor, but all in vain. And the thought that the disease might permanently sap my energy and constitution, made me disheartened, when, fortunately the Marathi book on 'Sūrya Namaskāra' by the Rajasahib of Aundh came to hand. A careful perusal of the valuable booklet induced me to try the Namaskār Exercise for relief. I did try and was able to do fifty Namaskāra within a week, as I had already been practising gymnastics, &c. The wonderful alleviation of my disease brought about by this divine exercise within so short a time, encouraged me to continue it. I gradually increased the number of Namaskāra to 200, when all pain vanished and I was restored to health. I was very happy to find that Sūrya Namaskāra achieved what all medical treatments and other exercises failed to do. I have since then been a staunch adherent of Sūrya Namaskāra.

Having been thus convinced of the therapeutic and prophylactic value of the Namaskār exercise, I wished that all my assistant teachers and pupils should profit themselves by practising this wonderfully efficient exercise.

I accordingly convened a public meeting, consisting of teachers, students and a large number of townsfolk and delivered a lecture on the necessity and importance of Sūrya Namaskāra for keeping one always fit and healthy. The lecture proved so effective that all the teachers and students agreed with one voice to do the Namaskāra in the school every day during school time. The public too were so favourably impressed that they immediately subscribed towards a fund necessary to erect a spacious and convenient hall for doing this exercise.

The hall was soon built to the delight of us all. As many as 150 students are now taking this Namaskār exercise simultaneously in this hall under my direction.

Another idea soon struck me: I wished to find by actual comparison if Jora and Baithaks also if daily and methodically practised would produce the same results. I, therefore, made two batches, each consisting of 25 boys of almost the same age, strength, stature and circumstances. Their individual measurements and weights were recorded in a register specially kept for the purpose, before each batch commenced its own form of exercise.

The same period of time was allotted to both the parties to do their respective exercises. Twelve months'

regular practice conducted under my personal supervision proved the decided superiority of Sūrya Namaskāra over Jora and Baithaks.

Indapur, 30th June, 1923.

S. D. Jardekar.

The Experience of Mr. G. K. Gokhale M. A.,
Superintendent, New English School,
Hubli, District Dharwar.

Having decided to give a trial to Sūrya Namaskāra I came to Anandh from Hubli and put myself in the hands of Mr. R. K. Kirtloskar - an expert in Sūrya Namaskāra, and also a great enthusiast in matters of physical culture—for being trained in the several movements, that make up the Namaskār exercise. I took my first lesson on the 18th October, 1923, and it required 4 or 5 days for me to learn the movements. I was doing only half a dozen Namaskāra daily as my body was stiff and the various muscles were put to a considerable strain in doing even such a small number of Namaskāra. But gradually they appeared easier to do and in a few days I could complete 12 Namaskāra almost according to the rules laid down. I could increase about 6 Namaskāra every half-week or so. To my great surprise, on the 17th day of my training, I could do 50 Namaskāra without being particularly fatigued or feeling out of breath. This I consider to be a great merit of the Pranava, Bija Syllables and Vedic hymns (to be recited while doing the Namaskāra) which are so graduated that the period of rest (due to having to recite the

Mantras, etc.,) goes on lengthening as the Namaskārs go on increasing in number. If the length of the mantras for the first 12 Namaskārs be supposed to be unit, the length of the Mantras for the next 12 Namaskārs is two units; for the next 3 Namaskārs, it is 4 units and for the next 3 it is 12 units; so that you feel quite fresh by the time you have finished the first cycle of 24 or 25 Namaskārs.

I can assure all those who may be thinking of taking this Namaskār exercise that it is easy to learn and quite safe as it does not put any undue strain or do any injury to any muscles or organs of the body. To do the movements exactly according to the rules prescribed would involve such a strain, but the beginner is not expected to aim so high; it is better for him to attain perfection in course of time as he makes progress. In fact, some of the positions are so hard that they can only be done perfectly after months of practice.

Even with the little practice I have had I am beginning to feel the beneficial effects of this exercise. The extra fat on my abdomen is growing thinner and my chest seems to be expanding. The constipative tendency, which had so far appeared natural and inseparable from me, seems within control and, on the whole, I am feeling more buoyant and energetic.

This exercise seems to have the most invigorating effects on the abdominal muscles and on the spine, which it stretches and compresses to a sufficient degree. The strength and elasticity of the spine is a very important factor in the general well-being of the whole body and

the maintenance of perfect health. The Namaskār exercise satisfactorily fulfils the principle enunciated in the following statement of Bernarr Macfadden:—

"If you feel that you do not have time to exercise any other part of the body, at least exercise the spine. It will yield you the greatest dividend for the time invested. I believe it is always well to exercise other parts of the body also in order to have a balanced development, but some people cannot be convinced that they have time to exercise the entire body and for these I say — 'Exercise the Spine'!"

— "Strengthening the Spine" pp. 116, 117.

From this it follows that the Namaskār Exercise (to be taken until one perspires freely) is the indispensable *minimum* for every person of *either* sex, young or old. It is a special boon to those who have passed or are about to pass the 40th mile-stone on life's pathway and in whom deterioration of health in various forms may be making its appearance.

Aundh,
8th November, 1928.

G. K. Gokhale,
Superintendent,
New English School, Hubli.

CHAPTER XII.

A State at Exercise.

We have been fortunate enough to convince our people of the usefulness of physical education in general and of the Sūrya Namaskāra in particular and they have taken to them with such enthusiasm as to demand a State regulation to make the Sūrya Namaskāra compulsory in all the schools of the Andh State. Sūrya Namaskāra have been, accordingly, made compulsory in all of the schools in our State.

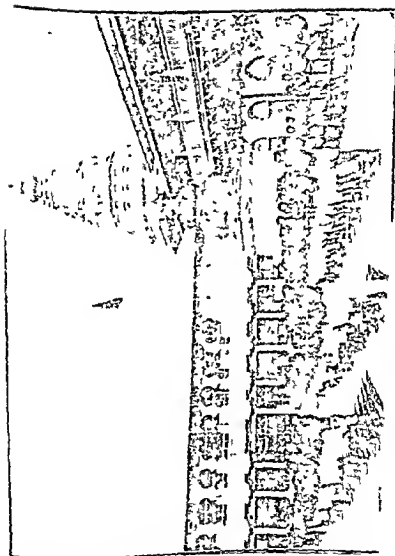
We don't believe in prominent muscle-in over-muscled men. Harmonious development of the entire body is a *sine qua non*. It is immensely more important to see 1000 men, women and children to go through a series of carefully planned exercises like Sūrya Namaskāra than to watch some professional athlete beat the world's record in some useless attainment by one-tenth of a second.

It is our dearest wish that the students of our schools should carry the benefits of the system not only to their families, but extend them to all with whom they come into contact.

Would it be too much to expect our brother-rulers and the educational authorities in British India to adopt our system and to extend the blessings of Health, Efficiency and Longevity to the present and coming generations?

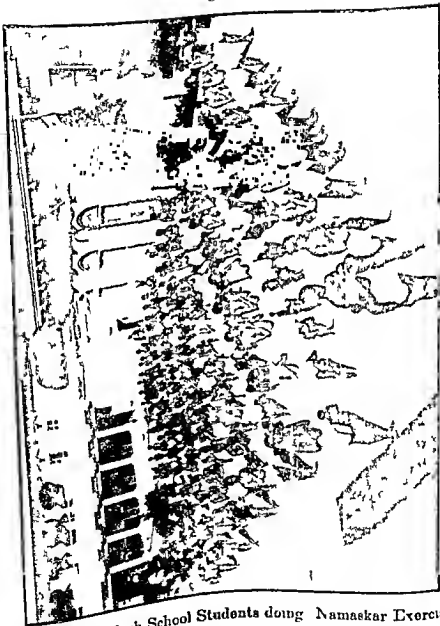
Should our dream be realized, there will be seen within the short space of 5 or 10 years a vast improve-

Fig 18



Aundh High School Students doing Namaskar Exercise

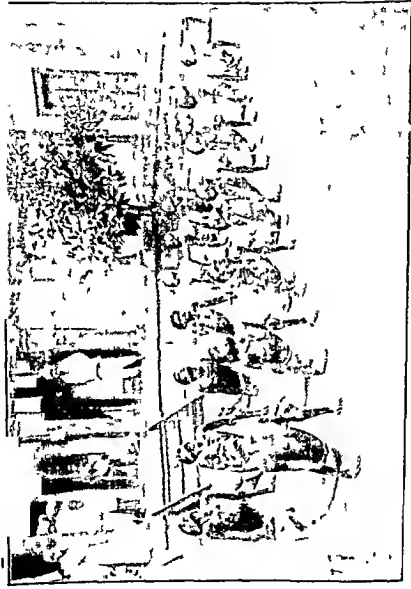
Fig 197



A High School Students doing Namaskar Exercises



Aundh High School Students doing Namasakar Exercise



Aundh High School Students doing Namasakar Exercise

ment in health, strength and spirit of our school and college going population. We will not, however, be fully satisfied if the health of our boys only is improved, because society requires that the health of our girls—the mothers of the race—should be improved even before that of the boys. The old girls' schools woefully neglected all provision for the physical education of the pupils. Latterly these glaring evils of the system of education imparted to our girls at school and college have been to some extent mitigated. These benefits, inadequate as they are, reach the limited circle of school and college going girls only.

The large mass of girls (and of boys too for that matter) who do not attend any school or college is left practically without any means of proper physical exercise; and with the break-up of the old joint family system, the number of girls in the family is decreasing every day and group exercises are becoming impossible. And the need for a system of physical exercise, which a girl can take entirely by herself is becoming more and more keenly felt. To all such girls our Sūrya Namaskāra offer the most admirable & efficient system of physical exercise. And as in the case of men, so in the case of women, this superb exercise, carried out according to the needs and capacities of the individual, will bring permanent happiness not only to the individual, but to all the succeeding generations as well.

The nation that wishes to stand on its own legs should pay more attention to the development of women. Women as well as men should be equipped for their task in

peace as well as in war. While military service in actual warfare may not be required of women, compulsory physical instruction and body-building will be necessary to both sexes for the national well-being.

One of the chief merits of Sūrya Namaskāra is that it is best adapted to group exercise or exercise *en masse*. Under proper supervision, hundreds of students — boys and girls, — can be made to take this exercise simultaneously, thus affording the double advantage of efficiency and economy of time. The students may be grouped according to age, height or capacity.

We are convinced from our experience of group exercises performed in all the Primary & Middle Schools as well as in the High School of the Andh State for the past sixteen years, that of all the group exercises to be made compulsory the Sūrya Namaskāra is the only one that can be taken most conveniently, most economically, and most efficiently. (See figures 18, 19, 20, 21 and 22.)

It is hardly necessary, to observe that the daily practice of Sūrya Namaskāra does not only not interfere with, but actually adds to, the enjoyment of any form of game or pastime requiring physical exertion.

So we are never opposed to out-door games, sports, wrestling, gymnastics, athletics, swimming, hunting, riding, etc. The main point we want to emphasize is that along with a variety of sports and games according to taste, means, space and other circumstances, there must be a *daily compulsory exercise like Sūrya Namaskāra* which can be done singly or *en masse* all the year round in order to lay a real and lasting foundation of normal



health and strength. For this exercise puts one in condition to take part in any sport or athletics requiring strength and endurance.

Systematic daily performance of Sūrya Namaskāra will also further the growth and harmonious development of the body of girls and boys. This exercise moreover forms the basis for all other bodily activities, because it is found to give in a marked degree the power of control over the body and mind and the capacity to use the strength to the best advantage in "games and sports, especially those which require prolonged exertion without injurious results. It minimizes the risk of over-strain especially of the heart."

Normal all-round health, thus acquired and retained through Sūrya Namaskāra done daily, will enable one to render a better account of oneself not only in any sport or game but in every-day life also.

CHAPTER XIII.

DIET, HABITS AND COOKING

1 Diet

Your biggest asset—greater even than ability or wealth—is **Health** Guard it Prize it Health can start or end with the quality and quantity of food you eat But the average persons diet is radically wrong It is so wrong that people generally are literally digging their graves with their teeth

We do not, however, wish to dogmatize on matters of diet A few broad suggestions are all that can be given here

Before attempting to give even a general description of what our diet should be, we should like to place before the reader the opinions of some of the present day expert and experienced dieticians and medical men of Europe and America on the subject of food and nutrition Because "all persons receive inspiration from experiences of those whose judgment and success entitle them to the highest respect

(a) Upton Sinclair says in "Modern Review" — "Intelligently chosen, well-balanced food is the strongest ally we have in our fight against illness But when the 'art and science' of eating becomes uncontrolled, unplanned and heedless of the functions and limitations of the human body, then it itself becomes the root of many ills and a crime in the fullest sense of the word!"

(b) Like many doctors, Dr. Belfrage M. D., Chairman of the New Health Society's Food Committee, London, and author of 'What's Best to Eat', is convinced that many of his people eat too much, especially in the way of meat and accordingly he concludes his book with this grim warning—

"Leave gormandizing—Know the grave doth open for thee thrice wider than for other men!

(c) Vitamins

The term 'Vitamin' is now employed to designate certain substances contained in milk, fruits, vegetables and other articles of food. The exact nature of these substances is not known, but they have been shown to be necessary to the normal development of young animals and children as well as to the maintenance of health and well-being in adults. They are very labile substances which existing abundantly in raw foods, especially in *uncooked* fruits and vegetables, become seriously attenuated or altogether destroyed by cooking, desiccation, decortication and other refining processes.

We know the vitamin as we know electricity—by its effects.

There are probably a great many vitamins in natural foods—live or quick foods as they are called—but about six or seven only have till now (1936) been isolated.

For a fuller information of the reader, we give below an excerpt from an article by William R. Lucas, N. D. in "The Superman Magazine", March, 1934—

For the purpose of general guidance the chief vitamins are known as A, B, C D E and G

Vitamin A is called antiophthalmic because it tends to keep the eyes normal. It also stimulates appetite, digestion and growth. The chief sources of vitamin A are milk, butter, cheese, egg yolk, sweet potatoes, corn (maize), spinach, liver and cod liver oil.

Vitamin B is called antineuritic. It also stimulates appetite, digestion and growth. The principal sources are various vegetables, the germ of wheat, animal glands and yeast.

Vitamin C is the one that prevents scurvy. It is called antiscorbutic. The principal sources are fruit, berries, vegetables, oranges, lemons, tomatoes and lettuce.

Vitamin D is called antirachitic which means that it prevents rickets. Being tonic in its action, it helps to prevent diseases of various kinds. The natural sources are milk, butter, and dairy products and cod-liver oil.

Vitamin E is known as fertility or anti-sterility vitamin. It is abundantly present in the wheat germ and other whole grains, leafy greens, milk, egg yolk, and various meats and fats.

Up to date there is no clearly defined vitamin F, but it is thought that it will emerge out of Vitamin B.

Vitamin G is the anti-pellagra one and abounds in vegetables and milk. It is also present in lean meat,

animal glands, wheat germs and eggs. It is said to prevent pellagra and digestive and nervous diseases.

Wherein lies the importance of this knowledge of vitamin? Simply that it stresses that we should live largely on fruits and vegetables, that we should consume whole wheat and other whole grain products and reasonable amount of fresh unboiled milk and other dairy products as the basis of dietary. This is vital knowledge if it is used rightly. If it is not used it is nothing but a collection of waste words.

(d) We cannot close this vital subject of Vitamins without presenting to our reader Dr Leonard William, of Da sane advice — "The discovery of the vitamins presents would be scientists with a much needed lesson in humility. It reminds us that, in evolving man, Nature provided him with the foods necessary to his growth, development and well-being, and that in interfering with these natural foods by cooking, sterilizing and refining, he has sacrificed their efficacy, sometimes to his greed, but more often to his arrogant assumption of superior knowledge, with the result that he has not only promoted the prevalence of preventable disease, but has actually created others which but for his mis-directed energy would have had no existence."

(e) Proper Food - The Greatest Physiological Need

The following extract from 'What's Best to Eat?' by Dr Belfrage, M. D. will be found enlightening, thought-provoking and interesting.

The need of the hour is for a more intensive study of the conditions under which perfect *health* and the highest degree of *efficiency* can be reached by the community at large.

The conditions of life must be so improved that the body and its organs can function in a thoroughly efficient manner.

Among these conditions food and nutrition stand out pre-eminently and demand the greatest attention. *Good and properly selected food is the greatest physiological need of the body.*

True health is attained only by implicit obedience to the inexorable laws of nature. The laws of health for the plant and the lower animal are the laws of health for man in all the glory of his lofty intellect.

Man's intellect has enabled him to acquire such an independence of his natural surroundings as threatens his very existence.

Disorder and disease of the body has come to be regarded as inevitable and we are assuming a fatalistic attitude towards its ravages on our time and energies, which is utterly deplorable.

The appalling infant mortality in our cities, the poor physique of so many men and women and the distressing prevalence of sickness of all kinds, call for much earnest enquiry in search of some widely prevalent fault in the manner of living.

The discovery about 35 years ago of hitherto unknown factor in food substances—the Vitamins—opened

the eyes of scientists to the fact that there was much more to know about foods than their mere chemical composition.

Apart from actual disease there are too many people whose standard of mental and bodily health and efficiency is far lower than it should be. People who are always tired and complaining and who go about their work in a joyless disheartened fashion, devoid of enthusiasm, and to whom life is one long effort, are numerous in all classes of the community and are the discontented and unemployables who clog the wheels of progress, create disharmony around them and foster revolution.

Overfeeding is much commoner than underfeeding at any rate in this country (England) and in America, and it is a commonly accepted fact that we most of us are tempted by the pleasures of the table to eat a good deal more than our bodies need. Overeating is largely induced by the temptation to eat too much savoury meat and highly sweetened foods. Foods that are enjoyed for their *natural flavour* are not nearly so likely to be taken to excess.

Civilization has its penalties as well as its blessings, and not the least of these is the bad health and feeble stamina induced by a radical departure from the natural diet.

The *absence* of sufficient fresh uncooked, undamaged food stuffs in the diet is undermining the health and vigor of a very large proportion of the town and city dwellers in civilization who in a fatal ignorance of the true character of nutritive foods, think they are well fed.

If sufficient green food, fresh or preserved fruit and dairy products are taken in the diet, an ample supply of all necessary mineral salts will be obtained. They are as necessary to the life processes of man's body as to those of the plant.

(f) Bias of Custom and Desire.

In giving the whole subject of diet the thoughtful consideration it deserves, we should be careful not to be biased by *custom* and *desire*, for the body is largely a creature of habit and it craves that to which it is accustomed. Should we, at any time, deem it was wise to acquire other habits, it is easy to do so, and when the body has become used to them, it will desire the new kind of food just as much as it did the old.

—Extract from “ Ways to Perfect Health ”
by Irving S. Cooper.

(g) Meat not Necessary.

(i) A cogent argument against meat eating:—
“ By *habit*, most of us have been brought up to believe that *meat* is absolutely *essential* to health—that without it we should at least become puny and lacking in energy. Against this we must, if we are not bigoted, set the evidence of those who have given up meat altogether and benefited in health of body and mind.

“ Of course, if it could be proved that individuals formerly accustomed to a vegetarian or fruit diet *had been made ill by it*, and then by taking up a meat diet, had recovered perfect health, there would be sound reason for regarding that meat was essential. But it is

in an opposite direction that we find so many proofs that it is not essential

' It is those who have given up meat and restricted their diet to vegetables and fruit, or even fruit alone, who declare and show an improvement in health, and as is often the case, the removal of a disease threatening life itself "

— H G Styles, in " Health for All ,
January 1934

(11) Animal flesh is not strictly necessary, and no one will be the worse who for sentimental or other reasons does not include either butcher's meat, fish or bird in his dietary. Some of the finest races of mankind seldom or never eat flesh foods and practical experience has shown that flesh abstainers are capable of as great or greater endurance than flesh eaters

The individual who abjures flesh but takes milk, eggs and cheese, is probably on the safest ground. He claims that meat is unnecessary, that it contains the poisonous waste products of the animal which supplied it that it is generally eaten to excess, that the eating of it is apt to be followed by a lethargic condition, that some of the best intellects and most useful lives have belonged to men who abjured flesh foods and that the eating of flesh is a relic of barbarism. There is much truth in these claims. We may add to them the fact that the raising of meat on economic grounds is grossly extravagant seeing that the dairy cow is capable of returning at least 18 per cent of the food value of food she consumes, while the sheep or ox can only return 3.5 per cent.

Of the animal protein foods *milk* not only contain the best possible class of protein, but it is rich in vitamins and mineral salts. It is almost a perfect food in itself since it also contains a good fat and a good sugar. One and a half pints of milk contain *enough first-class protein* for the day's dietary. It is easy of digestion taken slowly so that it does not form large curds in the stomach, and it can be of course combined and cooked with other foods.

—Extract from "What's Best To Eat?"

by Dr. S. H. Belfrage, M. D. (London), 1926

(iii) A very limited amount of time devoted to the study of the Chemistry of food would reveal the fact to any intelligent person that *meat is wholly unnecessary*; that it contains absolutely nothing that cannot be supplied from other things, but that it does contain much poison that other things do not contain which is responsible for a great deal of physical trouble. This study would convince the housewife and mother that every chemical element of which the body is composed can be supplied in its *best* form from the vegetable world.

Don't eat much meat, none is better.

—Dr. Eugene Christian, F. S. D., in his book
"How to Live 100 years."

(iv) Meat-eating shortens life.

—Harold L. Graham, in "The Oriental
Watchman and Herald of health" for
November, 1927.

(v)

Fruitarianism.

For more than a quarter of a century I have eaten no flesh food, and so I have tested fully and for myself in practice both sides of the question. And as a fruitarian I am more and more conscious that the progress of the higher or more cultured classes is from Carnivorism towards Frutitarianism—from meat eating towards fruit eating.

—Dr J Oldfold, D C I M A, L R C P,
etc., in his book 'The Diet for Cultured
People'

(vi) Proteid Food from Nuts and Legumes

The changes which take place in the digestion of proteids are considerably affected by the nature of our diet. The Nitrogen compounds break down into waste products, chiefly Urea and Uric Acid which are excreted by the kidneys. The latter acid is almost insoluble in water and requires chiefly the alkaline element sodium to dissolve this acid as urate of sodium.

If, however, the food eaten is deficient in sodium, or too rich in nitrogen, there will be a surplus amount of uric acid formed which will cause harmful precipitations in the body. Hence we have such diseases as rheumatism, gout, gravel and kidney disease.

In carnivorous animals, the dog and cat, the liver is able to destroy most of the uric acid formed, but as man has not this power, it shows clearly that he is not adapted by nature to eat butcher meat which besides being a concentrated proteid always contains the waste

poisons, creatine, leucomaine, uric acid, &c, found in all animal tissues. To be plain then the great hygeinic error in eating flesh-meat is that the body gets an extra supply of waste matter which accumulates in the system, owing to the body having sufficient work to do in expelling its own uric acid, &c. Man ought to select his protied food from nuts, legumes, &c., free from harmful waste poisons and to use a plentiful supply of fresh vegetables rich in alkaline mineral elements, which neutralize the normal uric acid and cause it to be excreted without difficulty.

— "Health" for Dec. 1927, p. 227.

vii. Vegetable Protein vs. Animal Protein.

The ordinary individual, if asked to name the foods that lead in protein content, invariably would name the Animal protein foods, but by comparison of the twenty-six of the principal Vegetable protein foods with the same number of Animal protein foods, we find that the general averages are as follows:—

Vegetable Protein average is 25.89%

Animal Protein average is 21.79%

This gives a difference of 4.10% in favour of the Vegetable protein.

The Vegetable protein can do all that the Animal protein can do and do it much safer and better, because it has no harmful germs, like the Animal protein, and leaves no bad after effects, as Animal protein does.

There really is no good reason for eating meat. Then why appease a perverted appetite by eating that foul germ-filled carrion?

G. W. Remsburg, D. C., D. N.,
Author of "The Pan American
Diet Book."

viii. Extensive use of beef is one of the leading causes of the great prevalence of cancer in modern times.

Dr. D. H. Cross, M. D.

ix. The following is an instance given by Dr. Belfrage how one can thrive better without meat. When in the last world-war, the people of Denmark could get no meat they had to maintain themselves on whole wheat, whole rice, and whole rye. They had of course milk, butter, potatoes and green vegetables. But the wonder was that this compulsory diet reduced their death rate by 34%.

This condemnation of animal food on strictly scientific grounds proves that "Bhāji Bhākari" (sauces vegetable and jwari bread) is the best and cheapest healthful diet. 'Bhākari' gives the protein and 'Bhāji' supplies the alkalies and the vitamins.

A careful perusal of the above extracts from the works by experienced medical authorities, scientists, and expert dieticians, of meat-eating countries in Europe and America will, we hope, induce or enable our readers to make an intelligent selection of wholesome and nourishing food-stuffs, appropriate for individual needs.

To obtain the best results, however, from each diet an all-round physical exercise, like Sūrya Namaskāra, is absolutely necessary. A happy combination of a suitable diet and a suitable exercise will secure you Health, Efficiency and Longevity.

Let us now attempt a brief description of natural foods available in our Mahārāshtra, and a few culinary preparations and commercial products used by our people in general

[1] Milk.

There should be an ample supply of fresh clean milk (not boiled or pasteurized) in our daily meal. Each individual should have at least a cup of clean fresh genuine milk—preferably cow's milk—at each meal. All milk products, as curds, curdled curds, buttermilk, butter, ghee, may be partaken of with benefit.

Note— If milk is sterilized, boiled or even pasteurized with a view to destroy the bacillus in it, it will be deprived of its vitamins, etc., and the resisting power of the drinker will be lowered not to one microbe but to all

[2] Fruits.

A liberal use of fresh fruits and berries, is always desirable. Among the health-giving and nourishing fruits and berries may be mentioned: plantains, oranges, lemons, citrons, mangoes, pears, grapes, figs, raisins, apples, pine-apples, guavas, jack-fruits, melons, dates, peaches, pomegranates, custard apples (सीताफल), bullock's heart-fruits (रामफल), jujubes, strawberries, corinda fruits (करवंद), &c Sngarcane may occasionally be used.

[3] Nuts.

A small quantity of nuts should form part of your meals. Among nourishing nuts may be mentioned: almond, date, cocoanut, ground nut or pea-nut, walnut, apricot, cashew nut, pistachio nut, *chironia sapida* (चरीली), &c.

Parched nuts very slightly salted make a delicious essent.

[4] Whole Grain.

Whole brown rice* (unpolished), whole wheat, whole leguminous grains, (i. e. with husk or bran unre-moved), jwari, bajri, maize, नाचरा, (*cynosurus cor-porans*), राखा, (panic seed), साया, चरी (*coix barbata*), &c, should be used cooked, soaked in water or raw according to one's digestive strength or taste.

How whole wheat flour is superior to white flour will be seen from a convincing instance cited by Dr. Belfrage. During the campaign in Mesopotamia in the world-war (1914-18) the disease called *beri-beri* occurred in the British troops to a various extent. The men were fed on white flour, tinned meats and other preserved foods. They could get no milk, eggs, fresh vegetable or fruit. Fortunately the supply of white flour gave out and the men had to be supplied with the

* " Whole rice is one of the most important of all the products of the earth as a food for humanity; but when deprived of its coat or covering, it is one of the most poisonous when eaten by itself. Avoid polished rice. Avoid unpolished rice as such, for it is still the inside of the grain only. Brown rice is the right kind. "

-Complete Life Building Method of the Ralston Health Club, 1921, p. 223.

local native flour made from stone-ground grain, i e, flour which contained all the germ and branny coverings of the grain which contain plenty of vitamin B and other essential ingredients. The disease ceased to occur and those who were ill recovered. No more striking example of the value of whole meal flour could well be given.

The grains except rice mentioned in this section will give better results if they be allowed to germinate a little before being used.

[5] Legumes or Pulse.

Peas (चाटाणा), grame (हरभरा), beans (पायटा), pigeon-peas (तूर), green grams (मूग), kidney beans (मटकी), lentils (मसूर), black grame (उडीद), ohavalee beans (चवळी), horse gram (हुलगा, कुडीय), &c, when a little germinated and crushed in a food chopper, seasoned to taste and mixed with grated cocoanut and onion, will make a very tasty and substantial food, affording a goodly supply of protein, vitamins and mineral salts.

Note.— Legumes, when deprived of their skin (husk), lose part of their vitamins, mineral salts and most of the eliminative ingredients and occasion constipation and other intestinal complaints.

[6] Green Vegetables.

Green (uncooked), tender, leafy, edible vegetables, or their fruit if any, or both, such as celery, water-cress, lettuce, spinach, cauliflower, cabbage, fennegreek (मेथी), lady's finger (भेंडी), cluster bean (गोयारी), cucumber

काकडी, चाटूक, तयसै), cucumis acutangulus (दोडका), goose-foot (चाकवत), wood-sorrel (चुका) elephantopus scaber (पाथरी), brown hemp (भंषादी), tender gram-leaves (पल्लवा), safflower (करडी) chenopodium (चंदनरटवा), obraceous candidus (राजगिरा), amaranthus (माट), gourd (भोपळा), &c will furnish ingredients and roughage necessary for nutrition, health and elimination

Note — A considerable portion of these leafy vegetables should be used fresh & green [uncooked] for cooking destroys part of vitamins, &c

[7] Root, Bulb and Fruit Vegetables.

Bulbs, roots, and fruit vegetables, such as potato, sweet potato, radish, carrot, onion, gourds of various sorts, snake gourd, brinjal or eggfruit, cucumis, cluster-bean, tender jack-fruit, green plantain, &c., are healthful and nutritious. They may be used boiled, baked, steamed or raw according to consumer's taste and power of digestion

[8] Tasty Articles

Fresh, green, leafy, edible vegetables or their fruits, roots and bulbs, as radish, carrot, egg fruit, onion, garlic &c, and nuts grated and mixed with whole grains, soaked or germinated and seasoned to taste, will supply further varieties of appetizing articles

[9] Substitutes for Fruits

Fresh fruits, as grapes, mangoes, oranges, figs, &c, are not available throughout the year but whole grain, as brown rice, whole wheat, gram, pea, &c, can be had

always A large variety of tasty articles as * *dangar* † *papad*, ‡ *usal*, § *sandaga*, &c., may be made from these grains, raw, germinated or cooked; and they will, to a certain extent, serve the purpose of fruits.

[10] Tomato.

Tomato, a valuable vegetable from the nutritional point of view unfortunately finds little favour with the majority of our people. They should cultivate a taste for it as an important article of dietary; for the tomato yields large quantities of vitamins, mineral salts, &c. and admits of being used in a raw or cooked state in a variety of appetizing preparations. Another merit it possesses is its cheapness and fecundity. It can be eaten raw or cooked with a dash of salt or sugar to suit individual taste.

[11] Eggs.

Eggs or the yolk of eggs, next in importance to milk, may be used by those who have no objection to them, provided they are from *cleanly* and well-fed hens.

* Dangar (दङ्गर) — Flour of black gram (उडीद), prepared with salt and peppers

† Papad (पापड) — A sort of thin wafer-cake made of the flour of black gram (उडीद) or other pulse with spices.

‡ Usal (उसळ) — A dish consisting of pulse boiled, well spiced and fried up with greens, &c.

§ Sandaga (सांदगा) — A small ball of pumpkins, cucumbers &c., sliced or scraped up together, well-blended with spices and piquant ingredients, and dried. It is then fried before being served.

[12] Sugar.

Refined sugar might, with advantage, be dispensed with. It may be used very sparingly when absolutely necessary. Raw sugar or honey is a better substitute.

When we eat a lot of *white, refined* cane or beet sugar, two things detrimental to health occur: Some of it passes *unchanged* into the blood stream and, not being required there in this state, has to be eliminated by the kidneys; and some of it undergoes an acid fermentation in the stomach and causes acidity of the blood, thus giving rise to indigestion, constipation, acidosis, high blood pressure, diabetes, etc. Play safe and leave the white sugar alone.

[13] Salt.

Table salt (sodium chloride) is an inorganic mineral, and hence it can never be used by body cells. "In fact," says Dr. Remsburg in 'The Pan-American Diet Book,' "it is a burden to the entire body. It is an irritant to the stomach and blood stream. It is indigestible and hinders the digestion of other food. It puts mineral into the system and hastens old age, overloads the kidneys, etc.

"Very little organic salt is needed by the body. It is supplied in great abundance in fruits and vegetables in an organized condition, readily and easily assimilated by the body.

"Unfortunately, however, our modern methods and habits of life have so changed our diet from the normal that few people know what a natural diet is

with the result that they do not get in their food-decimated foods—a sufficient supply of natural salts to build up the body perfectly. Ignorant cooking processes also remove much of the organized salts. Hence to make the food taste as it should, mineral salt is added

‘ The principal taste of a salt eater is a salty one. Without this mineral salt in the foods one soon enjoys no many flavours as foods contain

‘ Use salt very sparingly. Cultivate your taste for natural foods, such as whole wheat, brown unpolished rice, green vegetables, fruits, raw milk, etc., and you will hardly require, or feel the necessity of, table salt—sodium chloride ’

Besides being a profound irritant, table salt is an *acid former*. Excessive salt is often the cause of obesity, stiff joints and bladder complaints

[14] Condiments and Spices.

Most condiments and spices are injurious stimulants. Our perverted taste and bad habits have made them a necessity. The *daily* use of them is a violation of Nature's fundamental law, which is that the natural and simple flavour of all foods shall be untouched and unmolested by outside influence or interference. The foods created by God for man are so rich in natural flavours that one does not miss, after a short time, the seasoning, but actually enjoys this wholesome food as God made it “ free from all frills and trimmings ”

It can be laid down as an absolute principle that any condiment that destroys the sense of perception of the natural flavour of any food, is bad. Another principle is that those condiments that are largely irritants are also injurious and should be avoided.

Tested by either of these standards, black pepper (मिरा), red-pepper or chilli (मिरची), mustard, (रह, मोहरा), etc, must unhesitatingly be condemned. They and other condiments have no food value. They are irritants and destroy the keen perception of taste of foods that are eaten with them. They have but one object and purpose and that is to amuse and stimulate an overworked and perverted appetite so that it shall at least put on a semblance of enjoyment. "Food that cannot be eaten without such stimulants had better never be eaten at all."

NOTE - The articles of diet referred to in this Chapter are mentioned only with a view to pointing out their dietetic value. The list is neither exhaustive nor compulsory. The vegetables, legumes, cereals, &c, which are objectionable on grounds of religion or individual dislikes or idiosyncrasies may be omitted. For instance, many persons are found to dislike onion, garlic, lentils, beans, radish, gourd, &c. They may omit them from their dietary.

Modern diet hangs too many anchors on health. You can feel their drag. You live, but the thrill is lacking. Vibrant health and radiant energy depend upon internal behaviour. And nothing maintains this inner cleanliness so perfectly as proper diet and proper exercise like Sūrya Namaskāra.

Rule of Health.

The general rule of health given by F. C. Haddock in his book "Power of Will" is worth observing :-

" Food should be regulated according to peculiarities of body and general work performed. Water which is pure should be freely drunk. Plenty of sound sleep should be secured, and slumber should be enhanced by plenty of pure air. Most people drink too little water. The air of many sleeping rooms would kill a wild Indian. Regularity of habits should be cultivated. Sufficient exercise must be taken to keep the muscles from degeneration and to vitalize the blood by activity of lungs."

This chapter on diet cannot be closed without a word of warning especially to the young enthusiast in health culture. Do not be led away with the idea that the true test of your physical powers is your capacity to gorge large quantities of eatables. Emphasis is laid on this particular form of weakness, because it is so common.

Another form of weakness is a sort of vanity of finishing one's meal in a very short time—hurried nervous eating. Both these weaknesses should be avoided. They result in throwing an unwarranted burden on the digestive organs and produce conditions most favourable to the inception of disease. Remember that most of the diseases are due to overeating or hurried eating which is a form of wrong eating.

The question is often asked, "How many meals a day should be taken?" Though the answer may depend on a number of factors regarding the capacity of the eater, the life he leads, the quality and quantity of food he takes, still we venture to say from our own experience and that of others that only two meals

a day with no snacks between would be quite enough for an average Indian adult, man or woman, till fifty-five or sixty and only one meal after that age. Too frequent eating without keen hunger is undoubtedly one of the greatest curses of mankind.

Special Regimen Unnecessary

In the case of Surya Namaskar exercise no special regulation of diet or regimen is imposed or recommended as is done in the case of athletes and wrestlers in training. A quarter or half a **sher* of clean fresh cow's milk may, if one could afford it, be taken with advantage an hour or so after the Namaskars. It is not, however, indispensable. The golden rule of two meals a day for the young, with no snack between, and one meal for the old, should be observed by all. None, therefore, who do Surya Namaskars will ever be troubled or afflicted with indigestion or other ailments due to overfeeding.

Fasting

However careful we may be in selecting the proper food and in regulating the quantity, some undesirable and unnecessary edibles and liquids find their way into our stomach, owing partly to our ignorance and partly to force of habit, and are likely to cause trouble.

To counteract this unpleasant result, fasting, as a remedial measure, is absolutely necessary.

The Golden Rule is to fast when you lose appetite. Loss of appetite is nature's warning that no more

* One *sher* is a ghty tola ¹⁶ weight or a little over two lbs.

burden should be laid on the digestive apparatus of the body. It is a good plan to set apart for fasting a certain day each week or each fortnight.

Overfed folk die before their time. A fast is the finest tonic. Don't be a slave to habit-bunger. Longevity of our ancestors can be ours by judicial fasting. Most religions, therefore, enjoin that a fast be observed on certain days, as Ekadashi, Lent, Roza, etc.

A fast may be *complete* or *partial*. In a complete fast nothing but pure water is taken

A partial fast consists, once or twice a day, of a *little* fruit or fruit juice, or a *little* quantity of milk, butter-milk, nuts, roots, etc

Note — "Honey is of unusual value in giving one a restful feeling during a fast. The water you drink can be sweetened to taste with honey. It seems to take away your appetite and gives you increased energy; and outside of a loss of weight you will hardly know you are fasting if you drink water sweetened with honey."

SCIENCE CONFIRMS VALUE OF FASTING

"The cure of disease by fasting is next to the cure of disease by a miracle, the most dramatic therapy known to mankind. It is as if a man should find life by deliberately shaking hands with death.

"One notion which Dr Mergulis conclusively explodes is the idea that fasting is injurious. He has established by an elaborate series of test on men and animals that a fast continued till there is a loss of 10 to 15 per cent of the body weight, is not only innocuous but is highly beneficial.

"Dr. Morgulis has come to the conclusion that fasting is definitely a means of reinvigorating the organism

"He finds also that the complete fast involving entire abstention from food, is the least dangerous form of fasting to attempt

II Habits

Never be a drug addict It matters little whether the drug you take is the milder one like tea, coffee, tobacco, or the deadlier one like morphine, cocaine, opium, alcohol, etc When once you cannot lead an ordinary life without the unnatural stimulus of some particular drug, you are lost to perfect health.

"Your ability to form habits," says Shelley Castle, a great Psychologist, "is one of your most precious possessions" You will reap untold benefit if you use that power wisely. Habits will mend or mar you according as they are good or bad. Form, therefore, a habit that will keep your body and mind healthy

Now a word on habit-forming articles ignominiously regarded as food, that spoil health, such as tea, coffee, cocoa, etc Science and practical experience have established the fact that the sweet aroma and flavor of these habit forming stimulants are more than counteracted by the poisonous ingredients contained in them A long continued use of these articles is positively harmful to the digestive organs and to the entire nervous system and thus is a prolific source of a variety of chronic diseases afflicting the present generation, and the evil may affect future generations also

Tea and coffee contain no food In taking tea and coffee man is taking pure poison and no nourishment

whatever. The increase of nic acid diseases among people can be clearly traced to the enormous and universal spread of tea and coffee habit.

The surest remedy to do away with this evil will be found in the advice given by F. C. Haddock, M. S., Ph. D., in his great work, "Power of Will" :—

"All evil habits," says he, may be destroyed by man who really desires to master them.

"The cure of bad habits is to be effected by destruction of desire for their indulgence. The desire of course precedes the act and should have one's attention, it can do but little good to refuse the act over and over again, always leaving the desire unmolested, unconquered.

"If there is not enough manhood left in you to desire reform you must consult a physician or a "cure" and if this will avail nothing, then, to be sure you must go on as a slave."

III Method of Cooking

A word or two on cooking food the health way, will not be out of place :—

Thousands of our people, especially those living in cities and towns, are actually starving in spite of a most bountiful and daintiest table. For really it is not always how much or what you eat, that determines your health and strength, but it is the proper selection, combination, and cooking of foods that are of vital importance to your well-being.

The ordinary method of cooking vegetables, cereals, legumes, etc., in *boiling water* destroys part of the nutritive elements contained in them. The excess water after boiling is usually discarded and the washed out remnants of the food are eaten.

"This loss of nutritive elements by the boiling process is not an imaginary or theoretical conception. Because the lost elements are soluble in water and, therefore, invisible, one is not likely to realize how very serious is the loss. Recent tests at the University of Wisconsin showed that such losses from boiling foods in water are really very serious.

"Sixteen kinds of vegetables tested for the various ingredients showed losses from boiling that ranged from about 10 per cent in the case of potatoes to as high as 60 and 70 per cent in the case of some of the mineral elements of leafy vegetables. The loss of calcium and iron was particularly high "

Our ignorant cooks and most housewives boil dead many vegetables, cereals and legumes in water and throw the boiled water in sink or sewer, say the water is sometimes even changed two or three times! All the mineral salts and vitamins are lost in this way. These salts, etc. are vitally necessary to health.

When the vegetables, &c., are thus rendered tasteless and flavourless, sauces, spices and condiments are poured over them in the vain effort to restore to them the lost taste or flavour. It must be remembered that there is not an iota of body-building material in the entire category of condiments, spices and seasoning. Instead they are all acid producers and a burden on the digestive apparatus.

These same foods, however, when cooked by the modern methods in covered pots - that retain all the nutritive

and flavnur elements, will have a richness and individuality of taste that could not be equalled or imitated by the most elaborate sauces and dressings.

We have long been eating foods cooked in a cooker. After trying many makes of cookers, we find the one designed by the late Mr. Vajirav R. Guttiker, B. A. LL. B., retired Sub Judge, Belgaum, and the High Court Judge of the Aundh State, to be the best, simplest, most economical and efficient. We strongly recommend it to our readers. (Vide Chapter XIV.)

Last Word of Caution

Dear reader, we are out for Health, Efficiency and Longevity and we are not out for large prominent muscles. Therefore, we would advise you to find out, for yourself the amount of the Namaskār exercise that is good for you as well as the quality and quantity of food that you need and the amount of work and recreation and rest.

One has personally to adjust the equation between work and rest, between sleep and wakefulness and between food and exercise by careful experimentation. General directions are all that could be given here.

There is a beautiful saying * in Marathi which means that men's constitutions differ as their faces and hence each individual must find out for himself the proper relations of study to play and of work to rest.

The Bhagaved Gītā says, " He whose food and activity or exercise are properly regulated, whose toil and

* जितया व्यक्ति तितया प्रकृति.

st are properly adjusted in all works, and whose sleeping and waking hours are properly determined, to such one does the highest benefit come " †

Proper selection, therefore, of diet from vital foods, with fasting at frequent intervals, when coupled with regular, systematic Sūrya Namaskāra, will, in a single generation, produce wonderful improvement in health, strength, vigour and bodily size of our people.



† युक्ताहारविहारस्य युक्तचेष्टस्य कर्मसु ।
युक्तस्वप्नावबोधस्य योगी भवति दुःखहा ॥
— Bhagavad-Gītā, VI, 17.

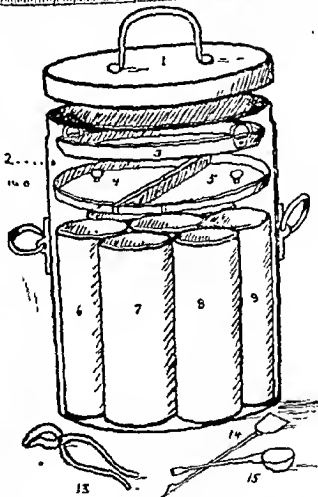
CHAPTER XIV

The 'Guttikar Cooker.'

How do you enjoy your daily meals these days? Do you honestly look forward to the table with keen anticipation? Or do you feel you don't need anything depressed about food altogether? If your meals, however simple they may be, are not a pleasure, your digestion is wrong. Nature has stored away in her food valuable mineral salts, vitamins, etc., whose function is to aid digestion. In ordinary cooking these salts etc., are often evaporated or poured down the sink. Not so with the Guttikar Cooker. It retains all precious salts, vitamins, etc., besides retaining or enhancing the taste and flavour of natural food articles.

We have made a passing reference to the Guttikar Cooker in Chapter XIII. But such a vast number of enquiries about this Cooker, nay several orders for it, were received that we thought it necessary to add a new chapter describing in some detail the usefulness and construction of, and instructions for cooking in, the Guttikar Cooker.

No lover of India can fail to notice that the daily family cooking absorbs most of the time of the Indian woman of the middle class. We and a few friends like the late Mr. Guttikar always thought that if some means could be devised to relieve our mothers, sisters and wives of the drudgery of cooking, a most valuable service would be done to the country in general and to our women in particular.



1 Lid. 2 Big Pot 3 Circular Plate. 4, 5 Two Semicircular Plates.
6-12 Seven Inner Vessels. 13 Handy Lifter.
14 Flat-headed Ladle 15 Ladle.

So long as man must eat cooked food, cooking is one of our daily necessities and it, therefore, behoves us to reduce the inconvenience, hardship and drudgery, connected with it as much as possible.

And the result of our experimentation and experience is the Guttikar Cooker, which is extremely simple, say, fool-proof. No other cooker can be simpler and at the same time more efficient.

Besides reducing considerably the housewife's drudgery and inconvenience, the Guttikar Cooker offers the following advantages :—

- (a) It gives you extra time to do other things.
- (b) The entire meal cooks at one time without the necessity of watching
- (c) It prevents food from burning, scorching, from getting dry, or from remaining uncooked.
- (d) Foods keep their natural flavour, mineral salts, vitamins, and other food elements so necessary for health and body-building.
- (e) It renders food more tasteful, appetizing, nourishing and more digestible.
- (f) The aroma and flavour of natural food stuffs are brought out to a richness and fulness, never equalled by any other method of cooking.
- (g) When it is left on the grate or chaffler even an hour or two after cooking, the food will keep sufficiently hot and fresh.

We give below the specification of our Standard Guttikar Cooker which can cook food sufficient for

about seven or eight ordinary persons. The accompanying Illustration, which represents it, will show that it consists of—

1. The Lid.
2. The big cylindrical Pot, 12 inches in diameter and 11 inches in height.
3. Circular Plate with handles, 12 inches in diameter and $1\frac{1}{2}$ inches deep.
- 4-5. Two semicircular Plates, each $1\frac{1}{2}$ inches deep, with knobs to handle them.
- 6-12 Seven inner cylindrical vessels to receive raw food material. each 4 inches in diameter and 8 inches high.
13. A handy iron Lifter.
14. A flat-headed iron Ladle.
15. An iron Ladle.

The whole cooker is made from brass sheet.

Vessels No 1 and Nos. 6-12 are coated with *pure* tin. Nos. 3, 4 and 5 are coated *inside* and *out* with pure tin.

In the hands of a novice in the art of cooking, the Guttikar Cooker is a safe guide. In the hands of an expert cook, it is a capital instrument with great and marvellous possibilities, as we have found by actual use for several years.

If cooking in the old way takes away much of *your time*, we want you to devote only 15 minutes in the morning and a little less in the evening. Charge the Cooker, light the fire and it does the rest. The

time and trouble thus saved is really an addition to the life of the housewife and Mr. Guttikar was proud — and rightly so — that he had helped to minimize her labour and to add to her comfort and longevity.

Let us finish with a pregnant passage from the works of Dr. Mc Carrierson, M. D., Oxford, England, one of the greatest modern authorities on dietetics:—

“The two chief causes of disease and death are food and drink.

“With increasing knowledge of nutritional problems, it has become apparent that our dietetic habits need remodelling and that education of the people as to what to eat and why to eat (and how to cook) is urgently necessary.”

Directions for Cooking in The Guttikar Cooker.

Rice:—

(a) Polished rice — The proportion of rice to water should be 1 : 2 by measure.

(b) Unpolished or brown rice — the proportion of rice to water to be 1 : 2½ or 3 by measure

2. Pulses:—

For one measure of pulse use one measure of soft water. (If water is not sufficiently soft add a pinch or two of soda bicarb.)

3. Vegetables —

Whether they be fruit, roots, tubers, or leaves, use no water. Cut them into thin pieces and

slices and 'place' them in an inner vessel or in one of the plates, seasoning them with a little salt, spice, grated cocoanut, etc., according to taste. A little tamarind and raw sugar is often used according to individual liking.

Whole potatoes, sweet potatoes, onions carrots and other tubers cook nicely and retain natural flavour when placed in the plate or pot.

4 Gramflour Cake:—

Mix gram flour or flour of any other edible legume with milk or curds or water to a slightly thick or semi-liquid consistency, seasoning it with a little salt, a dash of spice - such as coriander, cumin-seed, etc., according to taste. The addition of grated cocoanut and onion will make the cake more tasteful and nutritious. Pour the mixture on a plate, smearing the plate beforehand with a little butter or ghee. Cut the whole cake when cooked into squares and serve.

5 Flour cake:—

Grind into grit or coarse flour the whole cereals such as, wheat, Bajri, rice, Jwari, mazo, etc. Mix this grit with water or milk or curds to semi-liquid consistency and a little of ghee or butter, and if necessary with khismis (raisins without pipe) almond and grated cocoanut and season it with salt or sugar according to taste. Pour the mixture upon a plate smearing it beforehand with a little butter or ghee. Cut the

whole cake into squares and serve This dish will be found very rich, tasteful and appetizing

- 6 Gried brown rice and black gram separately into grit or rough flour Take the rice grit and black gram grit in the proportion of 2 1 by measure Soak the mixture in thin sour butter-milk or hot water over night, add a little salt, black pepper and ginger according to taste Pour this semi-liquid mixture into the plate or plates
- 7 (a) Germicata edible legumes and cereals such as pea, gram, bean, lentil, wheat, maza bajri, etc and season them with salt, ginger and other spices according to taste and add grated cocoa nut and sliced onion Place the mixture in one of the inner pots without adding water
- (b) When pulse is to be used, soak it in pure water for two or three hours and treat it as above
- 8 Fill the big pot with soft drinking water about three inches deeper so that after boiling an hour or an hour and a quarter, about an inch of water be left in the vessel Place the inner pots and upon them the plates with their contents and close the pot with the lid, and place it on an iron grate with burning charcoal for an hour or an hour and a quarter according to quality of charcoal
- 9 Fuel —

Babul charcoal is best The charcoal should be hard and big pieces and not small crumbles

Fill one of the inner pots with charcoal and that quantity will be enough. Put this quantity of charcoal in an iron grate and kindle it. A round iron grate with about six or seven inches in diameter will do for a cylindrical cooker, 12 inches in diameter.

- Note- (a) Use soft, clean water in the smaller cooking pots as well as in the big pot.
- (b) Take special care not to allow even a grain or a leaf, etc, from the cooking pots or otherwise to drop into the boiling water in the big pot.
- (c) Do not place the cooker in a windy place.
- (d) When the cooker is charged and placed on the grate, a novice need not lift the lid (No. 1) to see if the contents are cooked, provided there is enough water in the big pot (No. 2) and the charcoal is sufficient and burning.
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CHAPTER XV.

ya Namaskars as a Preventive
Constipation, Consumption and
Premature Old Age,

I. CONSTIPATION.

1. WHAT IS CONSTIPATION?

Constipation is a condition of the bowels in which the evacuations from the bowels are of insufficient frequency and amount, more or less faecal matter being retained in the intestines.

If one is called upon to express in one word the many and multifarious diseases from which the modern man is suffering, that one word will be *constipation*.

Constipation is the bane of existence—the enemy of the human race.

From constipation start more than 90 per cent of all illnesses inasmuch as toxins or poisons from clogging food-wastes flood the system and attack you in your *weakest* point.

Let us explain in the words of Dr A. B. Oslen, M.D., how Constipation affects the whole system. Normally, in a state of health, the gate that separates the small intestine or duodenum, as we might call it, from the colon or garbage can, works in one direction only, that is, to let the waste substance into the large bowel. In chronic Constipation, the bane of so many millions,

its normal tone or strength and swings both ways. This allows the putrefying waste again to enter the small bowel, thus directly interfering with both the digestion and absorption of food, and also poisoning the blood stream and thereby lowering vitality and opening the door to infection, leading possibly to colitis, appendicitis, inflammation of the gall-bladder, "menstrual and pelvic troubles, convulsions, anemia, skin diseases, premature senility, paralysis, etc.

Poisons set up by Constipation give conditions favourable to cancer.

But the inroads of Constipation are so insidious that the sufferer often ignores them finding nothing very much out of the ordinary.

2 What causes Constipation ?

There are a thousand and one causes of Constipation, practically all of them being preventable or correctable. But all this apparent multiplicity of causes can be traced to wrong diet or overeating, to bad habits and to lack of proper physical exercise.

Few people ever enjoy perfect health. You realize it in your own case. How often you feel below par. Not sick, yet not certainly 100% fit Science now tells us why this is so. Wrong diet or overfeeding and lack of exercise is the cause.

3 How to prevent or Cure Constipation ?

By drugs? The tendency of people suffering from Constipation is to turn to drugs for relief. They ask the doctor, "What shall I take?" He invariably prescribes

some cathartic or laxative. But all laxative drugs, pills, potions or powders perpetuate this distressing ailment instead of curing it.

A balanced eliminative diet and proper bodily exercise will prevent and cure Constipation. We shall, however, confine ourselves to exercise only in this chapter.

As more unhappiness of the civilized folk is due to Constipation than to any other ailment, it follows that any form of exercise that will prevent and cure Constipation will claim more votes than its rival.

Considered in this light, the Sūrya Namaskār Exercise is pre-eminently calculated to give those movements to the abdominal muscles and to the entire digestive canal—movements that stimulate the peristaltic action of the bowels, on which alone depends a thorough evacuation of the waste matter of the bowels.

The muscles which are of primary importance and which are also most apt to be neglected and left unexercised by a normal man or woman of sedentary pursuits as well as by one of active business life, are those of the walls of the abdomen.

Even a cursory look at the chart of Sūrya Namaskārs will show that the Positions Nos. 2, 6, 7 and 9 are specially designed to give to the abdominal walls those stretching and contracting movements, which best secure the elimination from the colon. And we want to emphasize this particular feature of Sūrya Namaskārs. In no

other form of exercise do we find these stretching and compressing movements in a systematic manner.

In addition to the vigorous abdominal and intestinal movements required to be made in doing Sūrya Namaskāra, one has also to say loudly the Pranava and the Syllables—Om hrām, hrīm, etc (ॐ = ह्रीं, ह्रौं). Of these the Bija Syllable, ह्रीं (hraum) acts on the end of the colon, rectum and anus. This is borne out by the fact that the bowels, if reluctant in their function before bathing early in the morning, will open freely after about half an hour or so on finishing this splendid exercise.

You will, perhaps, ask—“Why should I need the Sūrya Namaskār Course, when I work hard all day with plenty of exercise?” The best answer to this is for you to analyse your own bodily conditions. Remember that the reason you are not in the best of shape physically and mentally is because you do not get the *right* kind of exercise. The Sūrya Namaskār Course not only normalizes the bowel functions but builds you *all over*. No daily employment can do this, as all employments can at best develop and strengthen some parts of your body at the sacrifice of others.

4 Personal Experience

Constipation or the reduced activity of the bowels seemed in our case to be a family complaint passed down from father to son. This ailment ran throughout our family. Our parents, brothers, and sisters suffered from Constipation and consequent *ailments*. “But”

ditary tendency is most likely nothing but a continuation from generation to generation of the the same dietetic and hygienic errors " For though, before we took to Sūrya Namaskāra some thirty-one years ago, we did a lot of other exercises systematically and continuously for several years, we suffered from Constipation, and naturally attributed it to heredity. This Constipation produced piles which had to be removed by operation in about 1909. The removal of the piles gave us great relief, but Constipation was still there. But since we commenced doing systematic Surya Namaskāra with Pranava, Bija Syllables & Vedic hymns in 1909, Constipation-the arch enemy-gradually diminished until it totally died away within a couple of years. Today we are quite free from it, though it is a matter of general experience that Constipation has a firmer grip in advanced age. This fact goes to prove beyond all doubt that had we taken to Surya Namaskāra from our boyhood, there would have been no Constipation and no piles.

5 Conclusion.

We, therefore, affirm that of all the forms of physical exercise the Sūrya Namaskāra stand first and foremost in preventing and curing Constipation which is rightly regarded as the bane of civilized man, since it is the primary and prolific source of all diseases that man is subject to.

Then, bestir yourself, good reader, begin Sūrya Namaskāra today and attain Health, Efficiency and Longevity, which God intended for you.

II Tuberculosis or Consumption.

1 Definition.

"Consumption or Tuberculosis of Lunge is a degenerative condition of the lungs due to changes in the lung tissues produced by the accumulation in the part affected of morbid and waste material circulating within the blood stream," says Bernarr Macfadden in his 'Encyclopedia of Health and Physical Culture,' 1931 Edition, Volume VIII, p 3751.

In this article we have used the term Tuberculosis or Consumption in the sense of pulmonary or lung Tuberculosis.

2 Do Germs Cause Tuberculosis?

The germ-theorists hold that Consumption is caused by microscopic germs, called tubercle bacilli, because, they agree, whenever any part of the body is attacked by Tuberculosis vast numbers of these germs are found in it, and, therefore, they conclude that these germs cause Tuberculosis; and at the same time they admit that people with sufficiently strong resisting power *cannot* be affected by these germs. Therefore it follows from this admission, as a corollary, that if the resisting power be increased there would be no fear of this bacillus—hence no fear of Consumption.

The increase of disease-resisting power is one of the attainments achieved by our system of Namaskār exercise.

"Only when the soil is first prepared upon which the tubercle bacillus can thrive will its depredations become noticeable.

It is, besides, a question whether the bacilli are the cause or the result of Tuberculosis.

Germs, moreover, of various kinds, such as diphtherial, typhoidal, malarial or tubercule bacilli, are found in the throat or spit of healthy persons who are, nevertheless, not brought down with the disease which is supposed to be caused by the particular germ. The average dweller in a city breathes and swallows millions of disease germs. Now if there was anything in the germ theory, the workers and employees in mills and factories where thousands of people congregate would soon fall victims to some serious disease. But there are no manifestations of this nature.

We, therefore, wish to emphasize with all the power we possess that if you have acquired and retained vigorous health and resisting power by doing the Namaskār Exercise, you need no more be afraid of germs than of the man in the moon.

3 Havoc Played by Consumption.

It has been estimated that one-fifth of the human race succumb to Tuberculosis, yet how little ordinary persons know about it.

"The greatest brains of the medical profession have sought a specific remedy for years. They still seek it. Humanity waits"

"Tuberculosis" says Dr. Chhnilal Bose, C. I. E., M. B., Rasāyanāchārya, in 'Liberty,' Calcutta, July, 28, 1929, "shows a steady increase in its incidence and mortality from year to year in large towns both of

Bengel and Berer. The disease appears to have got a firm footing in both the Provinces and it annually claims a large number of both sexes, particularly women, as its victims. Bombay, Madras, and other Provinces of India are no better in this respect.

4. The "Infallible" Remedy.

The habit of seeking pure air by sleeping out of doors at night and living out by day does not bring about maximum results sought for, though it helps considerably to cure and prevent Consumption.

The only *infallible* remedy for the cure and prevention of pulmonary Tuberculosis or T. B. lies in the correct method of Deep Breathing or Prāṇāyāma, as we call it. It consists in full inhalation, holding of breath and complete exhalation—all through the nose only, with the mouth shut.

The expression—Deep Breathing—is generally taken to mean filling one's lungs with air with a view to increase their capacity. But the *secret* of Deep Breathing is not so much in the method of inhalation as in that of exhalation. The manner of exhalation as expounded by all of our authorities, such as Patanjali, Yājñavalkya, Vesistha, Hata-Yoga-Prādīpikā, Amṛita-Bindu-Upa-nishad, etc., is to slowly exhale through the nose only and to press in or squeeze the belly as far as one can do in order to expel all the toxin-laden air from the lungs.

Most of the modern American and European authorities on Deep Breathing agree with our principle and method of exhalation.

The positive *cure* of consumption and the guaranteed *prevention* of pneumonia depend not on how much air you inhale but on how much you *exhale*.

Now, you will see how this Scientific method of exhalation is adopted in our Namaskār Exercise. In performing one Namaskār one has to squeeze or pull in the belly *three* times to secure complete exhalations, i. e., in Positions 2, 5 and 9. In other words, one has to do three Deep Breaths in one Namaskār. You thus do automatically as many as 75 Deep Breaths in performing *one* round, i. e., in doing 25 Namaskārs. In four rounds of Namaskār Exercise, which an average man or woman can easily do within 30 minutes, you actually do 300 Prānāyāms or Deep Breaths, i. e., 300 full inhalations, 300 retentions of breath, and 300 complete exhalations!

No germs, therefore, if any, can approach you nay, you can defy Consumption if you will but do the Namaskār Exercise daily and methodically.

The value of the Namaskār Exercise, when practised in open air with correct breathing and with the bare body exposed to the vitalizing ultra-violet morning rays of the Sun, can hardly be too strongly emphasized.

Thus, when regularly, systematically, daily and carefully done, the Namaskār Exercise will prove both a cure for, and a preventive of, pulmonary Tuberculosis.

III. REJUVENATION.

Premature old age and premature death are tragedies. The spirit of youth is always and everywhere desirable, nay, absolutely necessary. It is well-said that "it is better to wear out than to rust out". An old man or woman, though taking exercise, may not be quite as springy and as nimble as a youth or a maiden, nor should one expect to have "a twenty-five face on a seventy-five body," but discontinuance of all bodily and mental activities will invariably bring about rapid degeneration and decay.

See what our great Shankarācharya says about the value of life :

आयुःक्षणलक्ष्मात्रं न लभ्यते हेमकोटिभिः क्वचिपि ।
तद्येद् गच्छति सर्वं मृषा ततः काऽधिका दानि ॥

— "Prabodha-Sadhakar," 1,16

(Millions of sovereigns cannot buy a minute of life. If such a priceless life is spent in vain, there is no greater loss !)

In ceaseless but futile search for the fabulous "Fountain of Youth", countless soothsayers and sorcerers, wise men and fools, have been importuned for some mysterious concoction, some magic compound, broth or brew or implantation of a monkey's gland, which would serve to rejuvenate the body and lengthen life. The best and surest way, however, to get to the "Fountain of Youth" is the faithful daily performance of Sūrya Namaskārs, frugal natural diet and right mental attitude.

If you have reached that point where vitality is decreasing, if you feel yourself slipping, steps should be taken at once to fortify yourself against the disease of decrepitude. Take to the *Sūrya Namaskār* Course at once and you can step aside and can have vigorous health and freedom from sickness and premature senility.

The following conditions, among others, are universally regarded as indispensable for "making old bodies young":—

(a) **STRONG, STRAIGHT AND FLEXIBLE SPINE.**

A straight spine is one that enables you to carry your body erect. The central nervous system consists of brain and spinal cord with nerve ramifications radiating throughout the body. It is the spinal cord that represents life. If it be diseased death will follow; if it be unhealthy the body will be unhealthy. If this nervous system be not functioning normally, all the involuntary actions of the heart, stomach, liver, kidneys, glands, etc., will fail to work properly.

(b) **A STRONG BACK**

A man is as strong as his back. When most old people are seen with their spine and back bent forward, it is generally thought that a curved back or round shoulders are inevitable in one's decline, which is, however, wrong. Proper care and regular exercise will prevent this weakness and ugliness.

(c) **A STRONG STOMACH**

After about 55 or 60 one should have only one meal within twenty-four hours. Over eating, wrong eating

or intake of stimulants and drugs produces congestion of undigested food in the colon and this is one of the causes contributing to constipation, which "mothers a brood of diseases."

An abstemious low-protein and low-starch diet replenished with fresh green vegetables and fruit is conducive to health and longevity. Dietetic errors and lack of proper exercise bring about premature senility and death as in the case of Gokhsale, Tilak, Coolidge, Theodore Roosevelt, etc.

(d) COLON CLEANLINESS

Most people are likely to conclude that because their bowels move once a day, they are therefore, free from constipation. But how and how many times they open is the question. You must, therefore, get your colon examined and see that it is neither encrusted nor engorged.

(e) FLEXIBILITY OF JOINTS

A majority of old folk suffer from stiff joints--joints affected with rheumatism or gout, as a result of over-eating or wrong eating and lack of proper exercise.

(f) ABSENCE OF OBESITY.

It has been found that obese or corpulent persons are short-lived. If you wish for active longevity the girth of your abdomen must be considerably less than that of your chest.

(g) DEEP BREATHING.

A strong heart and good pair of lungs make for

vitality, endurance and longevity, and so are well worth cultivating. Any kind of exercise will, of course, help to do this to a certain extent. But if breathing exercises are also included, the chest will be widened and deepened so that greater space will be secured for the heart and lungs to function. Deep breathing and spine stretching are particularly valuable in age. It is for this reason that the Namaskar Exercise is pre-eminent, ly adapted to the aged in that it involves systematic deep breathing and spine stretching.

(h) ACTIVE SKIN

It is not generally recognized that the greatest single excretory organ is skin, upon the proper function of which depends to a large extent the health of man. No real reason exists for loading ourselves with burdens of unnecessary clothing in our country and in any country for that matter. At a conservative estimate clothes must be responsible for more than ten or fifteen per cent of disease and for a considerable portion of the cost of living. Daily exposure to fresh air and sun will render the skin active and young.

(i) YOUTHFUL SPIRIT

"A man is as old as he feels" - is an adage that holds with greater force in the case of those of advanced age. The minute he loses faith in his youthful spirit and begins to feel like an old man and adopts the manner of an old man, he will rapidly get old. Faith is the dominant principle in man.

Mark what Shri Krishna says about faith -

अद्वैतयोग्य पुरुषो यच्छ्रद्धां स पश्य स ।

—Bhagavad Gita 17.3

K. T. Telang's interpretation of the above—"A being here is full of faith, and whatever is a man's faith that is a man himself."

As soon as a person retires from his usual service or work, he thinks that he is old and has nothing to do in the world but to spend the balance of his life in laziness under the groundless apprehension that any bodily activity or exertion would shorten his life. But he should remember that it is rusting out and *not* wearing out that really causes premature senility and death. Youthful spirit always depends upon the activity of body and mind. Bodily activity and mental activity are interdependent. Go, therefore, with the feeling that you will ever continue young and active and you will remain active and young and "will enjoy life with all the gusto of youth—with perhaps a great deal added to it."

(1) ACTIVITY OF BODY AND MIND

Our holy Vedas enjoin thus—

कुरुतेवेह कर्माणि जिजीविषेत् शतं समाः ।

Shukla Yajurveda, 40/2

G R S Mead and J C. Chattopādhyāya render the above:—"Here, on the earth, such deeds performing, a man should will to pass his hundred years."

"There is no necessity for retiring at any age. If a man is intensely interested in certain kinds of work there is no reason why he should not continue such activity practically to the end of his days.

"For an active person to sit down and do nothing is equal to a death sentence. And to have nothing to do but to search for pleasure becomes obnoxious after a while."

"To feel that you are accomplishing something worth while in life is a source of unlimited satisfaction.

"In distant past—thousands of years ago—when we were guided by instinct—before the days of machinery, commercial and political greed, doubtless we lived a perfect life.

"To-day we need intelligence to guide us. And if you are lacking this required attribute you will have to pay for your ignorance; and it may result in your losing life's most valuable possession—youth—prematurely by scores of years."

—Bernarr Macfadden

in "Physical Culture" for December, 1939.

Mental activity is as necessary to health as bodily activity—and especially so in old age. It is found from statistics that the professional men and mental workers, such as scientists, philosophers, theologians, etc., live longer than mere manual workers and those given to hard bodily labour.

Concentration is a faculty of mind indicative of its strength and energy.

"A long life measured in years is of value only if it means the preservation of one's mentality and personality up to the last of these years."

If you want your mind and body to function normally they must both have some suitable occupation or exercise as long as they exist. "When we stop learning, we begin to deteriorate, and it is then merely a matter of time ere Father Time beckons us to the Great Beyond."

It is but natural for man to wish for a long life and perennial youthful spirit. But many, instead of obeying

the wise laws of nature, simply waste their time, money and energy in the vain search of the fountain of youth or the elixir of life, which is really to be found in one body itself, not to mention the mad craze for countless specifics, patent medicines, drugs and dopes, in order to prolong their life. ,

A careful perusal of the previous chapters or better still your daily practice of Namaskār exercise with balanced abstemious diet will not fail to convince you that all the aforesaid conditions will be fulfilled by the systematic daily performance of the Namaskār exercise which with its different positions, deep breaths and concentration develops and strengthens the brain, spine, back, stomach, heart, lungs, intestines, etc., which are the power centres of humanity.

Thus the Namaskār exercise will bring about rejuvenation by preventing premature old age and dotage.



CHAPTER XVI.

What Can Surya Namaskars Do ?

NOTE:— How to prevent the common ailments—Constipation, Consumption and Decrepitude—is described at some length in Chapter XV and elsewhere. In this Chapter we give a summary of some of the other maladies, defects, weaknesses, &c., that can be prevented and cured by the Namaskar Exercise and other benefits derived from it.

When done *daily*, *systematically*, *correctly* and *faithfully* and according to our instructions, the Sūrya Namaskār Exercise —

- 1 Strengthene the entire digestive system (including stomach, pancreas, intestines, liver, etc.) and cures and prevents constipation.
2. Invigorates the nervous system (including the brain, spinal cord, solar plexus, &c.) and cures brain-fog, forgetfulness, worry and other forms of mental derangement. Though shattered nerves take a longer time and are more difficult to repair than other cells, our graduated course of Sūrya Namaskārs will slowly but surely restore them to normality.
3. Invigorates the heart and will cure and prevent blood-pressure, palpitation, &c.
- 4 Develops the lungs, gives "wind" and prevents tuberculosis.

5. Improves the quality and circulation of the blood. Active circulation of the blood is the *first law of health*.
6. Stimulates glandular activity; gives a new vivacity to the glands. Owing to the stretching and compressing movements of the throat and neck the thyroid gland is stimulated and any tendency to goitre is obviated. Correct glandular functioning governs health and attractiveness.
7. Improves the colour and function of the skin by enabling it to eradicate toxic impurities through profuse perspiration and to absorb vital energy from the atmosphere. A clear skin glowing with ruddy health and vigor is a winning factor for men and women in business and social life.
8. Strengthens the neck, shoulders, arms, wrists, fingers, back, stomach, waist, abdomen, intestines, thighs, knees, calves and ankles. Strengthening the back is known to be a simple but efficient remedy for kidney troubles.
9. Improves and develops the bust of maids and matrons, i. e. keeps it hard, firm and elastic; restores it to normal loveliness; improves small, flat, undeveloped breasts or those once beautiful but now thin, shrunken and flabby.
10. Improves the uterus (womb) and ovaries, removes menstrual disorders such as dysmenorrhoea and consequent pain and misery; renders

child-bearing less painful and more easy. All discomforts from menopause vanish.

11. Will rid womanhood of "morning sickness" and perverted taste and appetite, peculiar to pregnant women and regarded as inevitable.
12. Increases the quantity and improves the quality of milk in nursing mothers.
13. Prevents falling off of hair, lessens its tendency to grayness and prevents baldness by increasing nutrition to the hair and scalp, as the bending of the neck backward and forward, insures good circulation to the head.
14. Eradicates sexual debility, will banish the special weakness of men and women, will make every man a virile and vital specimen of masculinity and will make every woman a splendid specimen of womanhood.
15. Reduces redundant fat, especially the fat about abdomen, hips, thighs, neck and chin.
16. Will remove kidney troubles.
17. Strengthens the stomach, neck, back, and chest by the mere pulling in of the stomach towards the spine, as in Positions, 1, 2, 5, 7, and 9.
18. Reduces the abnormal prominence of the Adam's apple by the forward and backward bending of the neck.
19. Destroys the offensive odour of perspiration.

20. Reduces howleggedness.
21. Improves knock-knee in walking by Positions 2 and 9.
22. Prevents and cures neuæsthenia, when correct rhythmical breathing is done.
23. Will increase the height of the body if the Positions 2 and 9 are correctly performed by placing the palms flat on the ground and touching the knees with the forehead, keeping the knees perfectly straight.

Compressing and stretching the spinal column as in Positions 2, 3, 6, 7, 8, & 9 will also increase height.
24. Will produce direct mechanical effect upon the alimentary canal by Positions 2 and 9 and will prevent and cure constipation.
25. Not merely gives you external form, shapeliness and muscle of the body, but improves and normalizes the function of most of the vital internal organs.
26. Makes you immune from disease by tremendously increasing your disease-resisting power. The practical test of health is that one should never have even ordinary cold or cough, which is regarded even by some medical men as inevitable or as a matter of course. A healthy person never feels that he has any organ or limb.

27. Takes you step by step quickly, easily, surely, from your present condition to the very height of physical perfection.
28. Is the quickest method for increasing and maintaining youthful buoyancy. The spirit of youth represents an invaluable asset. It is wonderful and satisfactory to know that you grow fit and getting the most out of life. Then you have the jump on your fellowmen.
29. Gives you Poise, mental as well as physical.
30. Endows the performer with more mental and psychic power and instills a theistic attitude in her or him gradually. It increases the power of mental concentration, optimism and self-confidence.
31. Is the foundation of healthy and sane life and will be of incalculable benefit to you throughout your life. Long, systematic, continuous and daily practice of Sūrya Namaskāra and right diet, as outlined in Chapter XIII, will, in addition to vibrant health and radiant energy, invariably create in you a dislike for all stimulants and sedatives; an aversion to hot things such as capsicum or chilly, pepper, spices and condiments; a disrelish for fried articles in general; and in top them all, generates in you the inestimable habit of abstemiousness, which will help you to live long. "The instances of longevity," says Sir W. Arbuthnot Lane,

Bart., C. B., England's great surgeon, "are chiefly among the abstemions." In fact, you gradually become partial to "Sātvika" diet, as defined in the Bhagavad Gītā, XVII, 8-

आयुः सत्त्ववृद्धारोग्यसुखशीतिविवर्धनः ।

रस्याः स्निग्धाः स्थिरा हृद्या आहाराः सात्विकप्रियाः ॥

(The kinds of food which increase life, vitality, strength, health, pleasure or joy of living, cheerfulness and philanthropy or fellow-feeling, (and) which are juicy, fatty or oily, substantial, solid or giving lasting satisfaction to hunger and delicious or heart-strengtheners, are dear to the Sātvika or the good.)

- 32 Will keep you away from sins, for sin is the product of weakness and disease
33. Will generate in you good thought, optimistic thoughts; will give a charitable and sanguine turn to your disposition and will imbue you with a spirit of self-sacrifice for the good of your community, your country and your king.
34. And will, in short, unlock the door to glorious Health, Strength, Efficiency and Longevity, which God intended for you

You will thus see that the Namaskār Exercise possesses the unique feature of co-ordinated actions of all the vital organs, nerves, muscles and other parts of the system, which are stimulated, developed and strengthened *simultaneously* -- a result not achieved by any other single exercise.

We do not profess that the Sūrya Namaskārs are panacea for all the ills that the human flesh is heir to, but we do claim that this system of exercise, if loyally and steadfastly followed, will reward the performer with superb Health, vibrant Energy, active Efficiency and useful Longevity.



CHAPTER XVII.

Cash Value of Health.

Most people think that if they did more business they would enjoy life better, but they forget the fact that if they enjoyed life better they would do more business. Unless they are healthy they can never enjoy life. "The man, who comes down to business in the morning with a smile on his face, has taken a long step towards making the day a successful one." Man's first duty, therefore, is to acquire perfect health. Your success financially and socially depends upon your health.

Says Emerson, "The first wealth is health. Sickness is poor-spirited and cannot serve any one; it must husband its resources to live. But health or fulness answers its own ends, and has to spare, runs over and inundates the neighbourhoods and creeks of other men's necessities."

The annual loss of industry and commerce, not to mention the privation entailed on private families, brought about by illness and physical inefficiency on the part of the individual workers alone is beyond computation.

The Minister of Health said in one of his recent reports that in England alone 25 Million weeks' work had been lost owing to ill-health.

Sir George Newman, the chief Medical Officer of Health, recently (1930) told the Health Education Congress that Britain spends not less than £ 20,000,000

a year on sickness and disablement benefit and the State treatment of disease, and that much of this would be saved if people lived according to the principles of hygiene. It is necessary, he added, to *teach people the way of personal health*, as they have not learned the lesson.

Sir George Newman's remarks apply to India *a fortiori*. Most illnesses and consequent loss of time and money are preventable. People generally need to learn how to live so that they may prevent disease from defeating their highest aspirations and how to live a life of radiant health. We have stressed this point many years and have clearly demonstrated that if the people of our country, or any country for that matter, would only adopt the principles of correct, proper exercise and natural living as outlined in this book and elsewhere, the nation would be saved crores of Rupees and thousands of valuable lives. Truly, sickness is a costly business and the obvious antidote is health education along *natural lines* in schools and colleges.

Dr. W. R. Lucas has this to say in his "Health Philosopher", May, 1936— "To-day it is estimated there are more deaths from nervous diseases than all forms of tuberculosis. Recent enquiries reveal that 31.67 men and 36.04 women of every thousand examined, between the ages of 16 and 64, were certified as *incapable of work* and suffering from '*anxiety neurosis*', otherwise known as fear of difficulties connected with financial, domestic or occupational matters."

If this is the deplorable state of things in England, one of the wealthiest independent nations—just imagine

the miserable and pitiable condition of India as regards *anxiety neurosis*.

Time has now come that some strenuous effort be made in all seriousness to overcome this national degeneration and economic inefficiency. Till now a number of different ways and methods have been tried with little success.

In spite of the so-called advance of the medical science, the incidence of disease remains today appallingly great. Old diseases are on the increase and new ones are coming into existence. All this is entirely due to the inexcusable or culpable neglect of the wise maxim—"Prevention is better than Cure." All our energy should now be directed to adopt immediate measures to prevent rather than to cure disease. Some scientific and systematic form of bodily exercise, therefore, should in addition to general health education, be enforced upon the young generation in general and upon the school and college going students in particular.

The Sūrya Namaskār Exercise coupled with simple natural diet is the only means that can save our country from the enormous loss of money brought about by preventable disease. We, therefore, strongly recommend that the Namaskār Exercise be made compulsory in all the schools and colleges throughout India.



CHAPTER XVIII.

THE SURYA NAMASKAR EXERCISE
ALONE DESERVES TO BE
UNIVERSAL

In addition to the merits of most other bodily exercises, the Surya Namaskār Exercise possesses the following specialities —

1. The Sūrya Namaskār Exercise strengthens the spinal muscles and stimulates the nerves located in and along the spine, which is fully stretched and compressed in every Namaskār Position.

Strong Nerves

Nerves are fibres which proceed from brain and spinal cord and ramify through all parts of the body and whose function is to convey sensation and originate motion or energy. Spine culture as represented by Surya Namaskars is as old as humanity itself, yet it is new as a daily newspaper. It strikes at the very root of ill-health and attendant troubles and leads to glorious health and energy.

2. Though obesity is nearly always traceable to flesh- and fat-forming foods taken in excess of the body's requirements, lack of oxygen or insufficient exercise is often the cause of obesity or redundant fat.

Slenderness

" So many fine looking men and women are neither so strong, so healthy, nor so youthful as they are believed to be. The popular idea that flesh provides a bulwark against disease, is quite erroneous. Quite as often as

not it foods disease, conduces to disease or masks physical deterioration.

" Obesity, in fact, provides a fleshy facade behind which physical deterioration can proceed apace "

From our own experience and that of many others we assert that the Namaskar Exercise is sure to reduce your excessive fat and relieve you from the perils of corpulence. It will not only reduce the superfluous fat but will greatly increase the vital energy.

Life Insurance Companies' mortality statistics reveal the startling fact that *persons below average weights have far the best chance of reaching a ripe old age*. Obesity shortens life. Corpulent people are martyrs to indigestion, heartburn, constipation, and a number of kindred ills.

3 " Constipation, like so many other complaints is

not so much a disease in itself as

Constipation *an evidence of bodily ill health*

In other words, costiveness is

often due not to any weakness or defect of the bowels themselves so much as to general debility, bodily ill health, and above all, *inertness*.

" The sufferer from constipation should not, therefore, delude himself into thinking that the trouble is only in bowels. Constipation is more a symptom than a primary malady. It is chiefly due to *faulty diet and lack of proper exercise*.

All the performers of Surya Namaskars will testify to the effectiveness of this unique exercise in generating

increased nerve power to the entire alimentary canal. Hence the Surya Namaskar Exercise is an antidote to constipation and attendant maladies (Vide Chapter XV.)

4. How tuberculosis can be prevented and rejuvenation attained by systematic
Tuberculosis and Rejuvenation. Surya Namaskar Exercise is fully explained in Chapter XV.

5. The Namaskar Exercise gives you poise, bodily as well as mental. Reflect upon what
Poise. Grenville Kleiser says about poise in "Vigorous Health" Magazine, May, 1936— "Poise is power under control. Poise stores up energy and holds it in reserve for special use. Poise keeps you calm and deliberate under varied circumstances. Poise does not mean listlessness, nor indifference, but strength, reserve and self control.

"Work done in poise confers pleasure upon the worker, because such work is likely to be thorough and intelligent. Poise conserves energy and gives balance to endeavour."

6. The Surya Namaskar Exercise is suitable for any
Suitability. person, male or female, young or old, rich or poor

7. It admits of being done singly or *en masse*—in groups.

8. It can be taken anywhere—in a room or in the open.

9. It requires very little space.
10. It takes a very short time.
11. It can be done at any time-day or night.
12. It can be performed in all the seasons of the year.
13. It requires no companion.
14. It needs no apparatus or outfit.
15. No special previous training or preparation is necessary.
16. It involves absolutely no expense.
17. It can be taken throughout one's life.
18. It builds, develops and strengthens the *whole* body *externally* and *internally*.
19. It receives hearty support and co-operation from the parents and guardians of students
20. It instils self-confidence into the performer
21. It keeps the performer always fit as a fiddle, both in body and mind. No worry. No tiredness.
22. The most distinctive feature of the Sūrya Namaskār Exercise lies in the fact that in other exercises and games we generally fix our mind on the right performance of them, while in doing the Sūrya Namaskār exercise we concentrate our mind to secure *Health, Efficiency and Longevity*.

As no other single game, sport or exercise can fully give all these benefits, the Sūrya Namaskār Exercise deserves to be *Universal* and we, therefore, recommend with all the emphasis at our command that it be made compulsory in all of the schools and colleges throughout India.

CHAPTER XIX.

Conclusion.

Before concluding, we should like to place before the reader for his consideration the following extract from the article, "Expectation of Life," by Dr. Radha Krishna, M. B. B. S., published in "The Vedic Magazine," Lahore, for September, 1927, on the subject of longevity, remedies for individual health, etc :—

REMEDIES SUGGESTED FOR INCREASING THE
EXPECTATION OF LIVES IN INDIA.

Before suggesting the remedies, it is worth while to consider whether increased expectation of life or the extension of life is really necessary. Dr. Sylvester Graham thinks life can be extended only at the cost of intensiveness, because intensive and extensive are incompatible with each other. But it has been amply proved by the modern physical culturists that by proper methods, life can be made both extensive and intensive without sacrificing one for the other. Extension of life is also necessary because of :—

1. The enjoyment peculiar to old age. Healthy old age is really the highest blessing.

2. From nations' standpoint, an old intellectual man of 80 is a valuable asset of his country, playing his part as adviser and judge, being endowed with his long experience of life and devoid of all passions of lust and conceit. He is more valuable than he was at the age of 40 and also more valuable than two men of 40 years each under the conditions. It has been truly said that the death of healthy old people soon after the age of 50 is a national calamity. The extension of life should, however, be associated with the preservation of intelligence and of the power to work, for which the following aids are suggested by various authorities at various times :—

REMEDIES.

- | | | |
|---|---|--------------------------|
| 1. Diet | } | For individuals |
| 2. Exercise | | |
| 3. " " | | |
| 4. " " | | |
| 5. Mental hygiene (Poise and Optimism) | } | For community as a whole |
| 6. Child and maternity welfare | | |
| 7. Sanitation and prevention of communicable diseases | | |
| 8. Educational measures | | |

One can mention only the names of the remedies here, the extension and description of each remedy demanding an essay for itself. One can briefly mention however, a few of the reputed programmes for increasing the expectation of life.

For individuals, the following 15 rules of hygiene as suggested by the Life Extension Society of America, a society of 100 selected men of America, are the best —

A — Air,

1. Ventilate every room you occupy.
2. Wear light, loose and porous clothes
3. Drill, out of door occupation, recreation and exercise
4. Sleep out if you can
5. Breathe deeply

B — Food

6. Avoid over eating and over-weight.
7. Eat sparingly of meat and eggs
8. Eat some hard,* some bulky, some raw foods
9. Eat slowly.

* Crisp and hard whole meal bread induces thorough mastication and insalivation — most important aids to easy peptic and intestinal digestion, while the presence of roughage in the form of fine bran favours the normal action of the bowels. Such bread and butter form perfectly balanced food.

C. - Posture.

- 10 Evacuate thoroughly, regularly and frequently.
11. Stand, sit and walk erect.
12. Do not allow poisons and infections to enter the body.
- 13 Keep the teeth, gums and tongue clean.

D. - Activity

- 14 Work, play, rest and sleep in moderation.
- 15 Keep serene.

" The underlying idea in framing these rules being that they should be —

1. Not artificial, but natural.
2. Not difficult, but easy

" These rules when followed —

1. Delay decay and death.
2. Avoid individual and racial deterioration, and
3. Prevent disease "

A careful perusal of the above excerpt will clearly show how natural and easy our Sūrya Namaskāra are and how when coupled with proper diet and fasting they will bring about results identical with those unnumbered in the last paragraph of the aforesaid quotation.

Before concluding we should like to draw the attention of the reader again to the important fact that in other exercises and games we concentrate our mind on the right performance of the exercise or game, while in doing the Namaskār Exercise we devote or fix our mind to secure Health, Efficiency and Longevity.

In conclusion, we have no hesitation in assuring our readers—men and women, old and young, rich and poor, strong and weak— that a faithful practice of the Sūrya Namaskāra in accordance with directions laid down above, and coupled with proper diet and fasting, will reward them not only with individual but with *National Health, Efficiency and Longevity* for the service of their country and of their king.



APPENDIX I.

Unabridged Sūrya Namaskāra with the Pranava, the Bija syllables and the three Vedic Hymns, as recited by the followers of Rigveda and Krishna Yajurveda -

॥ श्रीः ॥

तृचाकल्पनमस्काराः ।

आचम्य प्राणानायम्य । ममामन शुचिस्मृतिपुराणोक्तफलप्राप्त्यर्थं
श्रीमन्नितुमर्थं नारायणरीत्यर्थं च तृचाकल्पविधिना नमस्काराणां कर्म
करिष्ये ।

{ पात्रे उल गृहीता तन्मये गन्धाक्षतपुष्पाणि क्षिप्त्वा }

ध्येयं सदा सन्नितुमण्डलमव्यतीति । नारायण सरसिनासनसन्निरिष्टः ॥

केयूरान् मकरकुण्डलान् किरीटी । हारी हिरण्ययनपुर्धृतशखचक्र ॥

(इति ध्यात्वा)

- | | | |
|----|----------------------------|--------------------------|
| १ | ॐ न्हा उच्यते मित्रमह | न्हा ॐ मित्राय नम । |
| २ | ॐ न्ही आरोहन्नुत्तरा दिव | न्ही ॐ रत्ये नम । |
| ३ | ॐ न्हू ह्यग्रे मम सूर्य | न्हू ॐ सूर्याय नम । |
| ४ | ॐ न्है हरिमाण च नाशय | न्है ॐ भ नत्रे नम । |
| ५ | ॐ न्हौ शुक्रेषु मे हरिमाण | न्हौ ॐ खगायनम । |
| ६ | ॐ न्ह रोपणाक्रामु दध्मसि | न्ह ॐ पूष्णे नम । |
| ७ | ॐ न्हा अथो हारिद्रुपेषु मे | न्हा ॐ हिरण्यगर्भाय नम । |
| ८ | ॐ न्हा हरिमाण निदध्मसि | न्ही ॐ मरीचये नम । |
| ९ | ॐ न्हू उदगादयमादित्य | न्हू ॐ आदित्याय नम । |
| १० | ॐ न्है विश्वेन सहसा सह | न्है ॐ सन्नितु नम । |

- ११ ॐ ह्रौं द्विपन्तं मह्यं रन्धयन् ह्रौं ॐ अर्काय नमः ।
- १२ ॐ ह्रः मो अहं द्विपते रवं ह्रः ॐ भास्कराय नमः ।
- १३ ॐ ह्रां ह्रीं उद्यन्नय मित्रमह आरोहन्नुत्तरां दिवं ह्रां ह्रीं ॐ मित्ररविभ्यां नमः ।
- १४ ॐ ह्रूं ह्रैं ह्रोग मम सूर्य हरिमाणं च नाशय ह्रूं ह्रैं ॐ सूर्यभानुभ्यां नमः ।
- १५ ॐ ह्रौं ह्रः शुक्रेषु मे हरिमाणं रोपणाकासु दध्मसि ह्रौं ह्रः ॐ खगपूपभ्यां नमः ।
- १६ ॐ ह्रां ह्रीं अथो हारिद्रवेपु मे हरिमाणं निदध्मसि ह्रां ह्रीं ॐ हिरण्यगर्भमरीचिभ्यां नमः ।
- १७ ॐ ह्रूं ह्रैं उदगादयमादित्यो विश्वेन सहसा सह ह्रूं ह्रैं ॐ आदित्यसवितृभ्यां नमः ।
- १८ ॐ ह्रौं ह्रः द्विपन्तं मह्यं रन्धयन्मो अहं द्विपते रवं ह्रौं ह्रः ॐ अर्कास्कराभ्यां नमः ।
- १९ ॐ ह्रां ह्रीं ह्रूं ह्रैं उद्यन्नय मित्रमह आरोहन्नुत्तरां दिवं ह्रोगं मम सूर्य हरिमाणं च नाशय ह्रां ह्रीं ह्रूं ह्रैं ॐ मित्ररवि-सूर्यभानुभ्यो नमः ।
- २० ॐ ह्रौं ह्रः ह्रां ह्रीं शुक्रेषु मे हरिमाणं रोपणाकासु दध्मसि अथो हारिद्रवेपु मे हरिमाणं निदध्मसि ह्रौं ह्रः ह्रां ह्रीं ॐ खगपूपहिरण्यगर्भमरीचिभ्यो नमः ।
- २१ ॐ ह्रूं ह्रैं ह्रौं ह्रः उदगादयमादित्यो विश्वेन सहसा सह द्विपन्तं मह्यं रन्धयन्मो अहं द्विपन्ते रन्धं ह्रूं ह्रैं ह्रौं ह्रः ॐ आदित्य-सवितृर्कभास्करेभ्यो नमः ।

१२-२४ ॐ न्दां न्दी न्दं न्दे न्दी न्दः न्दां न्दी न्दं न्दे न्दी न्दः
 दधनय निग्रम आगेन्नुतरां दिवं हृदोमं मम मूर्ध
 दाग्निमं च नागप ॥ १ ॥ शुक्ले मे दग्निमं रोमगात्रासु
 दध्ममि जपो दाग्निमे मे दग्निमं निदध्ममि ॥ २ ॥
 उदगादयमाग्निो विश्वेन महमा सद् द्विपत्वं ममं स्व-
 यन्मो अद् द्विपत्वं स्वम् ॥ ३ ॥ न्दां न्दी न्दं न्दे न्दी न्दः न्दां
 न्दी न्दं न्दे न्दी न्दः ॐ निग्रमिसूर्यमानुगमद्दक्षिण्य-
 गर्भमग्निष्वादिष्यमन्त्रिष्टम्भाभ्करोम्यो नमः । (इति त्रिः)

२५ ॐ भूमविष्टे सूर्यनागपण्याय नमः ।

आदिष्यम्य नमस्कारान् ये कुर्वन्ति दिने दिने ।

जन्मान्तरसहस्रेषु दाग्न्यं नोपजायते ॥ १ ॥

नमो घर्मविषानाय नमस्ते नृगमाश्रिते ।

नमः प्रयश्रदेवाय भास्कराय नमोनमः ॥ २ ॥

अनेन तृचाकल्पनमस्कारार्थेन कर्मणा भगवान् धीमविसूर्यं
 नारायणः प्रीयताम् । न मम ।

अकाळमृत्युहरणं सर्वव्याधिविनाशनम् ।

सूर्यपादोदक तीर्थं जठरे धारयाम्यहम् ॥ ३ ॥

(इति तीर्थे गृहीत्वाचमनं कुर्यात्)

APPENDIX II.

Unabridged Sūrya Namaskāra with the Pranava, the Bija syllables and the Vedio Hymn as recited by the followers of Shukla Yajurveda :--

॥ श्रीः ॥

हंसकल्पनमस्काराः ।

आचम्य प्राणानायम्य ॥तिबिबिष्णुस्तथा वागे नक्षत्र विष्णुरेव च
योगश्च करण विष्णु सर्वं विष्णुमयं जगत् । अक्षरैश्च गितैश्च गुणविशेषेण
विशिष्टायां शुभपुण्यतिथौ ममात्मनः श्रुतिस्मृतिपुराणोक्तफलप्राप्त्यर्थं श्रीस-
वितृसूर्यनारायणदेवताप्रीत्यर्थं च श्रीहंसकल्पेनोक्तविधिना यथाशक्ति नम-
स्कारार्थं कर्म करिष्ये ।

अथ ध्यानम्: — ध्येयः सदा सवितृमंडलमध्यवर्ती ।
नारायणः सरसिजासनसन्निविष्टः ॥
केयूरवान् मकरकुण्डलवान् किरीटी ।
हारी हिरण्यपवपुर्वृतशंखचक्रः ॥

- | | |
|----------------------------|----------------------------|
| १ ॐ ह्रां हंसः शुचिपत् | ॐ ह्रां मित्राय नमः । |
| २ ॐ ह्रीं वसुरन्तर्गक्षसत् | ॐ ह्रीं रवये नमः । |
| ३ ॐ हूं होता वेदिपत् | ॐ हूं सूर्याय नमः । |
| ४ ॐ ह्रैं अतिविर्दुरोणसत् | ॐ ह्रैं भानवे नमः । |
| ५ ॐ ह्रौं नृपत् | ॐ ह्रौं खगाय नमः । |
| ६ ॐ ह्रः वरसत् | ॐ ह्रः पूष्णे नमः । |
| ७ ॐ ह्रां ऋतसत् | ॐ ह्रां हिरण्यगर्भाय नमः । |
| ८ ॐ ह्रीं व्योमसत् | ॐ ह्रीं मरीचये नमः । |

- ९ ॐ न्हं अञ्जा गोजाः ॐ न्हं आदित्याय नमः ।
- १० ॐ न्हं ऋतजाऽअद्रिजा ॐ न्हं सन्नित्रे नमः ।
- ११ ॐ न्हं ऋतम् ॐ न्हं अर्काय नमः ।
- १२ ॐ न्हः बृहत् ॐ न्हः भास्कराय नमः ।
- १३ ॐ न्हं न्ही हंसः शुचिपद्मसुरन्तरिक्षसत् ॐ न्हं न्ही मित्ररवि-
भ्यां नमः ।
- १४ ॐ न्हं न्हं होता वेदिपदतिथिर्दुरोणसत् ॐ न्हं न्हं सूर्यभानुभ्यां
नमः ।
- १५ ॐ न्हं न्हः नृपद्वरसत् ॐ न्हं न्हः खगपूषभ्यां नमः ।
- १६ ॐ न्हं न्ही ऋतसद्भ्योमसत् ॐ न्हं न्ही हिरण्यगर्भमरीचिभ्यां
नमः ।
- १७ ॐ न्हं न्हं अञ्जा गोजाऽऋतजाऽअद्रिजाः ॐ न्हं न्हं आदित्य-
सन्नित्रभ्यां नमः ।
- १८ ॐ न्हं न्हः ऋतं बृहत् ॐ न्हं न्हः अर्कभास्कराभ्यां नमः ।
- १९ ॐ न्हं न्ही न्हं न्हं हंसः शुचिपद्मसुरन्तरिक्षसद्भ्यो होता वेदिपदतिथि-
र्दुरोणसत् ॐ न्हं न्ही न्हं न्हं मित्ररविसूर्यभानुभ्यो नमः ।
- २० ॐ न्हं न्हः न्हं न्ही नृपद्वरसद्भ्योमसत् ॐ न्हं न्हः न्हं न्हं
न्हं न्हं खगपूषहिरण्यगर्भमरीचिभ्यो नमः ।
- २१ ॐ न्हं न्हं न्हं न्हः अञ्जा गोजाऽऋतजाऽअद्रिजाऽऋतम्बृहत्
ॐ न्हं न्हं न्हं न्हः आदित्यसन्नित्रर्कभास्करेभ्यो नमः ।

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